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Marine Recreational Fishery Statistics Survey, Atlantic and Gulf Coasts, 1985

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U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service, Washington, D.C.

June 1986

Current Fishery Statistics Number 8327

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U.S. DEPARTMENT OF COMMERCE
Malcolm Baldrige, Secretary

National Oceanic and Atmospheric Administration
Anthony J. Calio, Administrator
National Marine Fisheries Service
National Fishery Statistics Program

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PREFACE

The National Marine Fisheries Service (NMFS) initiated a series of surveys in 1979 to obtain estimates of participation, catch, and effort by recreational fishermen in the marine waters of the United States. This effort implements the first priority of the NMFS Marine Recreational Fisheries Policy which was established in 1981, namely, the development on a regular and continuing basis of a comprehensive marine recreational fisheries data acquisition and analysis system. The Marine Recreational Fishery Statistics Surveys (MRFSS) have included the use of commercial contractors to perform data collection and processing tasks. This report covers the MRFSS activities on the Atlantic and Gulf coasts from January through December 1985. The results of the 1979-84 surveys were previously published in the Current Fisheries Statistics publications 8322, MRFSS, Atlantic and Gulf Coasts, 1979 (revised) - 1980, 8324, MRFSS, Atlantic and Gulf Coasts, 1981-1982, and 8326, MRFSS, Atlantic and Gulf Coasts, 1983-1984.

This publication was prepared under the supervision of Mark C. Holliday. Past and present MRFSS personnel involved in the survey design, survey implementation, and analysis of data include David G. Deuel, Ronald J. Essig, Mark C. Holliday, W. Malon Scogin, and John F. Witzig.

The NMFS would appreciate comments on the information presented in this report, as well as suggestions for improvement or changes in the tabular presentation. Please address comments to: U.S. Department of Commerce, NMFS, National Fishery Statistics Program - F/S2, Washington, D.C., 20235.

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INTRODUCTION

Data on commercial fisheries have long been collected by the National Marine Fisheries Service (NMFS) and its predecessor agencies. However, data on marine recreational fisheries have not been collected on a systematic or continuing basis. The purpose of the Marine Recreational Fishery Statistics Survey (MRFSS) is to establish a reliable data base for estimating the impact of marine recreational fishing on marine resources. The information required for fishery management and development purposes includes size of catch by species, by subregion, by area, and by mode of fishing. For example, the MRFSS helps meet the goals of the Magnuson Fishery Conservation and Management Act of 1976 (MFCMA - Public Law 94-265). The MFCMA mandates a national program for management of fishery resources in the Fishery Conservation Zone (3-200 miles), and requires that the fishery management plans developed consider recreational as well as commercial fisheries and their harvests.

The survey described in this report reflects trip and catch data acquired during 1985. The first section of this report describes the survey methodology and estimation procedures. This is followed by a discussion of sampling variances and the precision of the estimates. The next section on results begins with several technical considerations in interpreting the data. A brief summary of the survey findings precedes the tabular results of the survey. Examples of length frequency histograms are presented for selected species. Tables after the results describe the classification of species groupings. Appended to the report are samples of the telephone and intercept survey instruments and a glossary.

The data presented in these tables are only a summary of those available from the MRFSS data base. Depending on sample size, catch estimates for individual species at the State, mode, area and wave levels may be available upon request. Estimates of number of trips and participants are also available at similar levels of detail. Other data available in a variety of formats include catch rates, lengths, weights and site descriptions. Inquiries for additional information should be directed to the address listed in the Preface.

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SURVEY METHODOLOGY

The data collection methodology used for the survey consisted of two complementary surveys: a telephone survey of households, and an intercept survey of fishermen at fishing sites. Numerous methodological studies indicated that the survey should be structured around this data collection approach. 1/ These studies showed that a telephone survey could be used to collect reliable data on certain aspects of recreational fishing, such as number of trips made in the past 2 months, locations fished, and dates on which those trips were made. Data on fishing trips became less reliable beyond a 2-month period. Information on the actual catch such as species, number, and weight and length of fish caught could not be reliably collected by telephone. These data were obtained from fishermen by trained interviewers at fishing sites. Figure 1 shows the data collected by each method. Data from the two independent sources were combined to produce total effort, participation and catch estimates.

Using the complemented survey approach, marine recreational finfishing estimates were derived for six 2-month periods during 1985. Results from the 1979 and 1980 surveys indicated that less than 12 percent of the total recreational catch on the Atlantic and Gulf coasts was caught during January and February. However, costs to sample this period of time were very high on the Atlantic coast. Therefore, sampling effort during January and February of 1985 was limited to the Gulf coast States, the Atlantic coast of Florida and Georgia. The effort for 1985 involved more than 41,000 intercept interviews and over 58,000 telephone interviews on the Atlantic and Gulf coasts. The following sections briefly summarize the methods and procedures employed in the telephone survey, the intercept survey, and the data processing.

1/Brown, Gary L., A review of literature in selected areas relevant to the conduct of marine recreational fisheries surveys (McLean, Va.: HSR, August 1977); Brown, Gary L., Robert L. Hiett and Dhirendra N. Ghosh, Evaluation of the door-to-door personal interview method as a technique for collecting marine recreational fishing statistics (McLean, Va.: HSR, June 1977); Chandler, Kathryn A., A methodological study of on-site intercept surveys of marine recreational fishermen on the West coast (McLean, Va.: HSR, July 1977); Chandler, Kathryn A. and Gary L. Brown, A pretest of an approach to collection of marine recreational fishing data on the East and Gulf coasts (McLean, Va.: HSR, January 1978). Hiett, Robert L. and Dhirendra N. Ghosh, Recommended approach to the collection of marine recreational finfishing and shellfishing data on the Pacific coast (McLean, Va.: HSR, August 1977); Hiett, Robert L. and Jay W. Worrall, Marine recreational fishermen's ability to estimate catch and to recall catch and effort over time (McLean, Va.: HSR, July 1977); Metze, Brenda C., Evaluation of the telephone interview method as a technique for collecting marine recreational fishing data (McLean, Va.: HSR, July 1977).

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Figure 1

DATA TYPE BY SURVEY METHOD

Categories of Data Collected in the Intercept Survey	Categories of Data Collected in the Household Telephone Survey
o Fishing mode	o Presence of marine recreational fishermen in the household
o Finfish catch, weight, and length by species	o Number of fishermen per household
o County/State of residence	o Number of finfishing trips in 2-month period
o Avidity level	o Location of each trip
o Area of fishing	o Location of household
	o Mode of each trip

TELEPHONE SURVEY METHODS

The telephone survey portion of the study was carried out in six 2-week periods of interviewing conducted near the end of each 2-month period of fishing activity. Each period of interviewing covered only fishing activity in the previous 2 months. The prescribed telephone interview quota for each wave varied with the amount of seasonal fishing activity expected. Telephone sampling effort was directed at households located in counties within 25 miles of the coast or major bays or estuaries. The sampling effort in the South Atlantic and Gulf of Mexico subregions was expanded during May through October to include households in counties within 50 miles of the coast. This decision was based on the expectation that most marine recreational fishermen live within these counties. Survey results from the on-site intercept survey confirmed this assumption as 72 percent of the intercepted fishermen lived within the telephone survey calling area.

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To maintain the statistical properties of the expanded estimates, the telephone sampling effort was probabalistically allocated at the household level. Interview allocations for each county were based on the square root of the population within each county. [1/] The allocation of calls made in each telephone prefix was based on the frequency of households assigned that prefix. The appropriate number of sample points (household telephone numbers) was then randomly generated for each county for each wave without duplication.

Telephone interviews were conducted between 8:30 am and 9:00 pm local time. Up to three attempts were made to reach each household and up to six calls were made to households determined to contain marine fishermen to complete the questionnaire. Spanish-language interviews were conducted as required. Information on marine recreational fishing activity was solicited from each fishermen in the household or from a responsible adult when appropriate. A sample telephone questionnaire is included as Appendix A.

INTERCEPT SURVEY METHODS

The intercept portion of the survey consisted of on-site interviews which gathered catch and demographic data from marine recreational fishermen in four modes: beach/bank, party/charter boat, private/rental boat, and fishing from man-made structures (e.g., piers, jetties and bridges). Sampling was conducted continuously in six 2-month sampling periods from January through December 1985, with the exception of the Atlantic coast north of Georgia, where January and February were not sampled.

The allocation of interviews by mode and wave was initially based on empirical data and informed estimates from the 1979-1984 surveys. The sample allocation among the various modes was modified as sampling results from 1985 became available. County allocations were based on the square root of each county's population size. Complete coastwide site lists were created and sites were randomly selected to meet the mode allocations. Sampling was scheduled to include all weekdays, weekends and holidays.

Interviewers were assigned to randomly selected sites where fishermen were interviewed at the completion of their fishing trip. At heavy use sites, samples were taken of every n^{th} fisherman at the completion of the angler's trip. The interview consisted of an introduction to the survey and information on the Privacy Act of 1974, an oral interview

[1/] U.S. Department of Commerce, Selected housing characteristics by States and counties: 1980. Publication Number HC 80-51-1 (October 1981); Sales and Marketing Management Magazine, The survey of buying power 1985 data service. (New York, NY, 1985).

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concerning the fishing trip just completed (e.g., how long the person had fished, what gear was used), followed by an examination of the respondent's catch. Length and weight data for a sample of each species in the respondent's catch were collected (see Appendix B for survey instrument).

The interview procedures varied slightly by mode. When assigned to party/charter boats, the interviewer occasionally rode on the boat to conduct interviews and to examine the catch. Private/rental boat fishermen were interviewed at boat ramps and hoists while waiting to recover their boat or at dockside while cleaning the boat. Beach and bank fishermen were widely distributed along shorelines with multiple access points. However, those fishing from man-made structures often had a single egress point where the fishermen could easily be intercepted by the sampler. Interview procedures were developed and implemented for each mode and unique set of conditions, including those where the catch was unavailable for identification, catches by more than one person, and multiple-day boat trips.

PROCEDURES FOR DEVELOPING EXPANDED ESTIMATES

The estimates derived from the telephone and intercept surveys fall into three categories: estimates of the number of trips taken, the number of finfish caught and/or landed (number and weight), and the number of participants in fishing activities.

Number of trips

The estimate of coastal county resident trips was derived from telephone survey and Bureau of the Census county population data. A proportion was derived of households with fishing activity in the previous 2 months to all households contacted in the sample. This factor was multiplied by census data on the number of permanent full-time households in each county to estimate total coastal fishing households in a State. The proportion of fishing trips by mode from the household sample was applied to the estimate of total fishing households to estimate coastal county resident trips by mode.

The telephone survey could not provide information on the number of trips taken by persons who resided in non-telephone households, or who lived beyond the 25 or 50-mile coastal zone from which the telephone numbers were drawn. Ratio estimators for calculating trip estimates covering both of these situations were derived from the intercept survey. For example, assume the telephone survey estimated 10,000 private/rental boat trips were taken

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by coastal residents in a State. If non-coastal county residents constituted 10 percent of all intercepted fishermen in that State and mode, then the estimate of total trips was increased by 1,000 (i.e., 0.1 x 10,000) to account for those trips taken by fishermen residing outside the telephone survey area. Similar procedures were used to estimate non-resident trips and to adjust for those fishermen residing in coastal counties who did not have telephones.

Number of fish caught

Estimates of total number of fish caught were calculated from the estimated total number of fishing trips by mode obtained from the telephone survey, and the average number of fish caught per trip obtained from the intercept survey. Figure 2 illustrates the manner in which data from the two surveys were combined to estimate number of fish caught. Multiplying the number of trips in a given State, mode, and area during a wave by the average catch of each species in the same State, mode, area, and wave resulted in an estimate of the total number caught of that species.

All fish that were caught by the intercepted fishermen were not available for the interviewer's inspection. The intercept interview, and the estimation procedures, distinguished between (1) those fish brought ashore in whole form which were available for identification, enumeration, and weighing and measuring by the interviewers (Type A catch), and (2) those not brought ashore in whole form. Those not brought ashore in whole form were separated into those those used as bait, filleted, or discarded dead (Type B1 catch) and those released alive (Type B2 catch). Expanded catch estimates were made for these three types of catch as shown in Figure 3. The purpose of estimating three catch types was to distinguish between those species identified and measured by trained interviewers, and those species reported to the interviewers by fishermen. Previously cited methodological studies indicated species were often misidentified by fishermen and their reported measurements subject to several types of bias.

The expanded estimate of total catch is the sum of Catch Type A, Catch Type B1, and Catch Type B2. The expanded estimate of the total catch which was "removed" is the sum of Catch Type A and Catch Type B1. The expanded estimate of catch not available for identification is the sum of Catch Type B1 and Catch Type B2.

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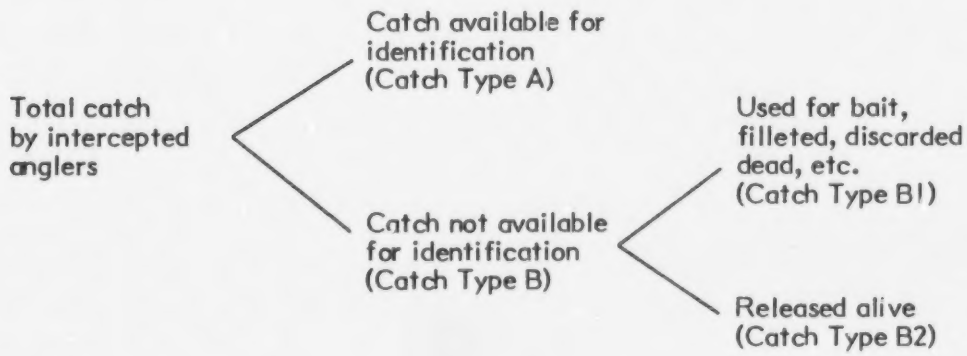
Figure 2

EXAMPLE OF FINFISHING CATCH ESTIMATE AS
DERIVED FROM COMBINED TELEPHONE AND INTERCEPT DATA

Telephone Data		Intercept Data		Results
Number of fishing trips for each State by mode and area	X	Average catch per trip by species, mode and area	=	Number of each species caught by mode and area for each State

Figure 3

DIVISION OF CATCH FOR ESTIMATION PROCEDURES


Total catch by intercepted anglers
Catch available for identification (Catch Type A)
Catch not available for identification (Catch Type B)
Used for bait, filleted, discarded dead, etc. (Catch Type B1)
Released alive (Catch Type B2)

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Weight of fish caught

Lengths and weights were obtained by sampling the fish caught and brought ashore in whole form by intercepted fishermen. Therefore, estimated weights were calculated only for catch Type A fish. Since the size composition of the remainder of the total catch (Catch Type B1 and Catch Type B2) is unknown and may differ from that of the fish represented in Catch Type A, estimates of the weight of the remainder of the catch were not calculated.

Incomplete trips

Most of the trips sampled in the intercept survey were completed trips. That is, the fisherman was interviewed only at the end of the fishing trip. When fishermen were interviewed as they left the fishing site, their probability of inclusion in the survey was not related to the length of their trip. A person who took a long trip and one who took a short trip had equal chances of being interviewed if the interviewer remained on-site all day.

If fishermen were interviewed while they were fishing, the probability of selection was related to the length of the fishing trip. This occurred only if interviewers arrived at a beach/bank or man-made site at which there was very little fishing activity. They then interviewed those fishermen present and proceeded to another site to conduct interviews. When an incomplete trip was processed, it was converted into a simulated complete trip so that the probabilities of inclusion were equivalent for all types of trips, and the catch was related to the duration of the average trip.

Participation estimates

The estimate of the number of participants, derived from telephone and intercept data, was complicated by the fact that people exhibited varying levels of fishing avidity. Some fished very frequently and others very infrequently. The probability of selection in the intercept survey was higher for the person who fished frequently than for a person who seldom fished. In estimating the total number of distinct participants it was necessary to correct for these differences in probability of selection based on differing levels of avidity. Estimates were only made on a State basis. The participation estimates produced are not additive across States since an individual can fish in more than one State during the survey period.

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Aggregation of estimates

The data for trips, catch, and participants were all calculated at the State, mode, area, and species level. Estimates were made on a wave-by-wave basis with all wave estimates calculated using the same formulas. The 1985 survey estimates were calculated by summing six waves of data from January-December for Georgia, the east coast of Florida and the Gulf coast States, and five waves of data from March-December for the Atlantic coast States north of Georgia. Elimination of sampling during January and February on the Atlantic coast results in an underestimate of approximately 10 percent of the catch, participation and number of trips for the calendar year. The data used to produce the tables in this publication are maintained in their unaggregated form in the MRFSS data base.

SAMPLING VARIANCES

A clustered sampling design was used throughout the telephone interview portion of the survey. However, the variance associated with the average number of fishing trips was calculated using a stratified simple random sample model for each stratum.

Estimation of the variances associated with the average catch and weight estimates obtained from the intercept survey was based on the assumptions that the primary sampling unit was the fishing trip of a single person and that there was no clustering effect due to grouping interviews at a site. These assumptions had been empirically verified in pilot surveys. Therefore, the variance was estimated using the standard variance equation for a stratified random sample: $\sigma^2_{\bar{x}_i} = E\left[\frac{s_i^2}{n_i}\right]$

where:

s_i^2 = estimated variance of stratum i,

and

n_i = number of interviews in stratum i.

Estimation of the variance of the combined estimates for the two surveys required special attention. The intercept survey provided estimates (x_i) for the average catch per trip for a mode within a State. The sampling variance $v(x_i)$ was estimated for the sample as described above. Let w_i be the estimate of the total number of trips from the telephone zone in the State for the corresponding mode (obtained from the telephone survey), and p_i be the proportion of trips from the telephone zone to the total trips intercepted. Then $y_i = w_i/p_i$ is the estimate for the total number of trips within a State for a mode. Since y is a ratio of two

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independent random variables, then the sampling variance of y_i is estimated by the equation:

$$v(y_i) = v\left(\frac{w_i}{p_i}\right) = \frac{w_i^2}{p_i}\left[\frac{v(w_i)}{w_i^2} + \frac{v(p_i)}{p_i^2}\right]$$

The sampling variance of the estimated total catch (for individual species and for species groups) was calculated in terms of the expected values and sampling variance of x_i (average catch) and y_i (total number of trips) for each stratum. Total catch was not normally distributed and therefore direct examination of the precision of the estimates is difficult. However, simulation experiments indicated that a normal approximation was satisfactory for constructing 95 percent confidence intervals around the estimated total catch.

PRECISION OF THE ESTIMATES

Precision refers to the dispersion of the sample measurements used to calculate an estimate and the resultant variability in the estimate. The standard error of an estimate is the square root of the sampling variance of the estimate. Even though an unbiased estimate of the sampling variances can be developed from the sample, no unbiased estimate of the standard error can be calculated from the sample. Nevertheless, the square root of the estimate of sampling variance is a consistent estimate of the standard error of the estimate, and is almost universally used in sample surveys. The standard error is necessary for calculating confidence intervals around an estimate. The width of a confidence interval is a function of the probability level selected, and is determined from the normal distribution. The most commonly used confidence interval is given by: estimate $\pm$ 1.96 X (estimate of standard error).

Confidence intervals provide an indication of the precision of the estimated total catch. At the same confidence level a broad interval relative to the estimate indicates a less precise estimate than does a narrow interval. The 95 percent confidence interval indicates that we can be 95 percent certain that the actual total catch is between the upper and lower confidence limits.

The coefficient of variation (CV) expresses the standard error as a percentage of the estimate. It provides an alternative measure of precision and is useful in comparing the relative precision of two estimates. A small coefficient of variation indicates a more precise estimate than does a large coefficient.

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RESULTS

TECHNICAL CONSIDERATIONS IN INTERPRETING DATA

Species groups

The number of observations for a species was an important consideration in determining the selection of species groups for the data tables. The catch of a single species is reported only if the number of observations exceeded a certain threshold. In some cases it was possible to combine several closely related species and report the catch for these species as a group. Species with fewer than the threshold number of observations which could not be combined with closely related species were put into the species group "Other Fish." Exceptions to these procedures were made in cases of economically important species such as striped bass. A list of species included in each species group is included after the tabular results. Care should be exercised when comparing the tables with previous years as the species composition of some groups may have changed slightly. However, all species estimates are maintained individually in the MRFSS data base.

Cooperative data collection

In 1985 the basic MRFSS effort was enhanced through the cooperative participation of State and Federal agencies. The States of Georgia, Maryland and Virginia either reimbursed NMFS for additional interviewing effort or used State personnel to collect an increased number of intercepts. These cooperative efforts provided the participants with needed data while taking advantage of the cost savings and methodology of a major survey.

Statistical considerations

The procedures used in the surveys to estimate the various parameters of interest (e.g., number of fish caught, number of participants) used ratio estimators. The reliability of ratio estimators is directly related to sample size; as sample size decreases, the amount of bias in the ratio estimate increases. No appreciable bias was apparent for any State in 1985.

Sample size also affected the completeness of the data matrix. Small sample sizes for a State and mode during a 2-month period occasionally led to "missing cells" in which no fishermen were interviewed. The presence of missing cells results in an underestimate of the total number of fish caught. The only adjustment made occurred when there were no

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observations for the weight of a particular species in a cell. Then, the mean weight of the empty cell was estimated by the mean weight for the species in the same mode and wave for the entire subregion, or by length-weight equations.

Telephone data from the State of Maine for the July-August wave produced unusually high trip estimates. Deletion of data from a single fisherman who reported fishing every day during the wave resulted in more realistic trip estimates.

Special care must be taken when comparing catch estimates for the 7 years (1979-85) of MRFSS data because of differences in sampling coverage. The 1981-84 sampling differs from 1979-80 in that the January - February waves in 1981-84 were not sampled on the Atlantic Coast north of Florida. The 1985 sampling differs from 1981-84 since the January-February wave in 1985 was sampled in Georgia. The 1981 sampling differs from all other years since the January - February wave of 1981 was not sampled in the Gulf and on the east coast of Florida. The 1982-84 sampling differs from 1979-81 and 1985 in that Texas boat mode data were not included in 1982-84.

Large increases or decreases of the estimated total catch of individual species groups are often due to the inclusion in the sample of unusually large catches of a species by one or a few fishermen. Calculation of an estimated catch for the species for an entire State then results in an artificially high estimate. However, examination of the standard errors or coefficients of variation associated with the estimates will frequently indicate no significant difference between the two estimates. Trends in the catch estimates from 1979 through 1985 should also be considered when examining the total catch estimates.

DISCUSSION OF THE RESULTS

The Atlantic and Gulf marine recreational fishery in 1985 showed few significant changes from 1979 to 1984 in the total number of fish caught in any species group. Bluefish, spot, Atlantic croaker, summer flounder, winter flounder, spotted seatrout and black sea bass remained the most frequently caught species. Bluefish, which ranked first in number caught in 1979-1983 and second to summer flounder in 1984, was surpassed again by winter flounder as the top species caught in 1985.

The total number of fish caught along the Atlantic and Gulf coasts was estimated at 381.8 million fish in 1985. The estimated catch for 1985 was close to the 1979-84 6 year average catch of 388.4 million fish. Approximately 35 percent of the total catch for the entire region was released alive in 1985. However, the percentage of live releases varied considerably among the subregions with 45 percent being released alive in the Gulf of Mexico

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subregion, 31 percent in the Mid-Atlantic, 28 percent in the South Atlantic, and 24 percent in the North Atlantic subregion.

Over 80 percent of the catch in number of fish was taken in inland waters (e.g., rivers, sounds, bays) or in the ocean within 3 miles of shore in 1985. Approximately 19 percent of the catch was taken in waters greater than 3 miles from shore. The remaining portion of the catch could not be identified by area. The proportion of the 1985 catch in number taken in waters greater than 3 miles from shore varied from 16 percent in the Mid-Atlantic to 22 percent in the South Atlantic.

The private/rental boat mode accounted for the highest percentage of the catch in number for all subregions combined in 1985 with 61 percent. All subregions except for the South Atlantic (37 percent) had private/rental boat catches representing over 60 percent of the total catch.

The average weight of a fish, estimated from the Type A catch for all subregions combined, was 0.76 kg (1.68 lbs) in 1985. The average weight of fish sampled ranged from 0.60 kg in the Mid-Atlantic subregion to 0.99 kg in the North Atlantic subregion.

The proportion of the 1985 catch in the FCZ by weight, estimated from the Type A catch, was 43 percent for all subregions combined. The percentage catch by weight in the FCZ was highest in the South Atlantic (58 percent), followed by the North Atlantic (44 percent), the Gulf (37 percent) and the Mid-Atlantic (32 percent).

Approximately 10.2 million anglers made 53.0 million fishing trips within their home State during 1985. Out-of-State anglers contributed an additional 17.6 million trips. The majority of all fishing trips within a State were made by coastal county residents of the same State. However, out-of-State anglers made more fishing trips than resident fishermen in Rhode Island. Residents of all 50 states were intercepted on either the Atlantic or Gulf coast in 1985.

The Gulf subregion accounted for the greatest number of fishing trips and participation by residents and non-residents in 1985 with over one-third of the Atlantic and Gulf coast total. This differs from 1983-84 when the Mid-Atlantic had the highest average number of trips and participants. The North Atlantic subregion had the fewest trips and participants for all 7 years of the survey. The private/rental boat mode accounted for the highest percentage of the fishing effort in 1985 in all four subregions.

Angler success, as measured by the average number of fish caught, was highest for the private/rental boat mode for all subregions in 1985, except for the Mid-Atlantic where the party/charter boat mode was highest. Overall, more than two-thirds of the anglers fishing in

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the party/charter and private/rental boat modes were successful in catching one or more fish; approximately 50 percent of those fishing the man-made and beach/bank modes were successful in catching fish. The success rate for the party/charter mode in the Mid-Atlantic was the highest of all reported in 1985.

The coefficient of variation for the total number of fish caught in 1985 was 3 percent. At the 95 percent confidence level the actual total catch was between 357.5 and 406.0 million fish. Eighty-two percent of the species groups had coefficients of variation less than 30 percent. The lowest species group coefficients of variation were 6 percent for saltwater catfishes, 8 percent for Atlantic croaker and red drum, and 9 percent for bluefish.

Length frequency histograms for selected species in 1985 (Figure 4) were generally similar to 1983 and 1984. Bimodal distributions were observed for weakfish, with a major peak at 300 mm and a secondary peak at 725 mm, bluefish, with a major peak at 400 mm and a secondary peak at 800 mm, and Atlantic cod, with a major peak at 450 mm and a secondary peak at 750 mm. These bimodal distributions are most likely the result of differences in the size of fish caught among fishing modes and areas. The length frequency data for each species are highly aggregated in these plots so differences among subregions, modes, areas and waves are masked.

The regional nature of the recreational fishery is characterized by the varying composition of the catches. Therefore, the following discussion will focus on the significant changes in the catches of specific groups in the individual subregions.

NORTH ATLANTIC. Winter flounder, scup and bluefish dominated the marine recreational fishery in the North Atlantic during 1985, as they did in 1979-84. These three species accounted for over 50 percent of the total catch in numbers in the subregion. Other frequently caught species were Atlantic mackerel, Atlantic cod, pollock and cunner. Catches of winter flounder and scup in 1985 were considerably greater than in 1983 or 1984.

The private/rental boat - inland mode-area combination accounted for the largest proportion of the total number of fish caught in 1985 (36 percent). The private/rental boat mode alone accounted for 63 percent of the total number of fish caught. This was similar to the 1979-84 average private/rental boat mode contribution of 60 percent. In 1985 the inland area accounted for the greatest proportion of the catch in number with 48 percent. This was similar to 1979-82 when the inland area accounted for the greatest proportion of the catch, but different from the 1983-84 catch by area predominance in the ocean 3 miles of less category.

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Approximately 1.5 million New England residents participated in marine recreational fishing in the North Atlantic and made an estimated 6.2 million fishing trips in 1985. These effort statistics were higher than the 1979-84 mean of 1.3 million participants and 5.6 million trips. Fishing activity was greatest during the July/August wave in 1985; approximately 8 percent of the coastal county residents of the North Atlantic States participated in marine recreational fishing during these months. Out-of-State residents made an additional 2.5 million fishing trips in this subregion.

Average catch rates for the boat fishing modes in 1985 were higher than 1979-84 mean values, while the shore modes in 1985 were lower than 1979-84 mean values. The private/rental boat mode had the highest average catch rate with 8.4 fish/trip and the man-made and beach/bank modes had the lowest catch rates with 2.3 fish/trip.

As in 1983 and 1984, bluefish was the most sought after species in 1985; winter flounder was ranked second and Atlantic cod was ranked third. Since intercept interviews are conducted at the completion of a fishing trip there is probably some response bias introduced that correlates the species sought with what was actually caught.

The coefficient of variation for the total catch in number of fish was 9 percent in 1985. Using the standard errors of the estimates, the actual total catch in number of fish was between 37.2 and 54.1 million fish in 1985 at the 95 percent confidence level. Although the precision of the catch estimates for individual species groups varied greatly, 50 percent of the species groups had coefficients of variation less than 30 percent. The lowest coefficients of variation were 16 percent for scup and 17 percent for winter flounder and tautog.

MID-ATLANTIC. Spot, bluefish, and summer and winter flounder comprised over 55 percent of the total catch in number in the Mid-Atlantic in 1985. These same species dominated the 1979-84 catches. The catch of winter flounder was considerably higher in 1985 than in 1983 and 1984, while the catch of summer flounder was considerably lower in 1985 than in 1983 and 1984.

The private/rental boat - inland combination accounted for the greatest percentage of the total number of fish caught in the subregion in 1985 with 48 percent. The private/rental boat mode alone accounted for approximately 69 percent of the total number of fish caught. The 1979-84 average percentage of catch from the private/rental boat mode was 57 percent. Eighty-four percent of the marine recreational catch in number in 1985 was from inland waters or within 3 miles of shore.

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Participation in marine recreational fishing by residents of the Mid-Atlantic States was 2.3 million fishermen in 1985. Coastal residents made approximately 71 percent of the marine fishing trips. Residents of the subregion made an estimated 13.0 million marine fishing trips in 1985; an additional 4.8 million trips were made by out-of-State residents. Fishing activity was greatest in the July/August wave with approximately 8 percent of the sampled residents of the coastal counties participating in the fishery.

Catch rates in all fishing modes in 1985 were higher than the 1979-84 average catch rates. The highest average catch rates were for the party/charter boat mode (9.4 fish/trip) and the private/rental boat mode (8.3 fish/trip).

Bluefish and summer flounder were the most sought after individual species in 1985 with approximately 34 percent of the respondents indicating a preference for one of the species. This result was similar to 1983 and 1984. No other species accounted for more than 10 percent of the responses during 1985.

The coefficient of variation for total number of fish caught in 1985 was 6 percent. At the 95 percent confidence level the actual total catch was between 99.7 and 128.1 million fish. Two-thirds of the 1985 species groups had coefficients of variation less than 30 percent. Species groups with coefficients of variation less that 14 percent were bluefish (10 percent), searobins (12 percent), spot (13 percent) and black sea bass (13 percent).

SOUTH ATLANTIC. As in 1979-1984, no species group clearly dominated the recreational fishery in the South Atlantic during 1985. Spot, black sea bass, Atlantic croaker and bluefish were the most abundant species caught in 1985 and accounted for approximately 38 percent of the total catch.

Anglers fishing in the private/rental boat mode took approximately 37 percent of the recreational catch in 1985, while the man-made mode accounted for 34 percent. Nineteen percent of the total number of fish was taken in the ocean greater than 3 miles from shore area.

Average catch rates in 1985 were similar to those in 1979-84. Catch rates were highest in the private/rental boat mode with an average of 5.6 fish/trip and lowest in the beach/bank mode with an average of 2.5 fish/trip.

An estimated 2.4 million residents of the South Atlantic States participated in the South Atlantic marine recreational fishery in 1985. This participation value was higher than the 1979-84 average of 2.1 million South Atlantic resident fishermen. Coastal residents made

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approximately 65 percent of the estimated 19.8 million trips in 1985. Fishing activity was greatest in the September/October wave with approximately 10 percent of the coastal population of the subregion participating in the fishery. Fishermen within the South Atlantic subregion showed the most uniform activity throughout the year of all subregions with at least 8 percent of the coastal population fishing each wave.

As in 1983 and 1984, the four most highly sought species were spotted seatrout, bluefish, red drum and king mackerel. South Atlantic anglers targetted the greatest variety of species of any subregion as these four species represented only 18 percent of the responses to species sought. Spotted seatrout was the top species sought with 7 percent.

The coefficient of variation for the total number of fish caught during 1985 was 5 percent. The actual total catche was between 71.0 and 88.0 million fish at the 95 percent confidence level. Approximately 57 percent of the 1985 species groups had coefficients of variation less than 30 percent. The lowest coefficients of variation for species groups were 11 percent for saltwater catfishes, 12 percent for spot and 12 percent for sharks.

GULF OF MEXICO. Thirty-four percent of the total marine recreational catch in the Gulf of Mexico in 1985 consisted of various members of the Sciaenid family (i.e., drums, seatrouts, croakers). Spotted seatrout was the most commonly caught species with 10 percent of the total catch. Other commonly caught species groups were saltwater catfishes, Atlantic croaker, sand seatrout and pinfish.

The private/rental boat - ocean 3 mile or less mode-area combination accounted for the largest proportion (40 percent) of the catch in 1985. Approximately 68 percent of the total number of fish caught was taken by anglers in the private/rental boat mode. Twenty-one percent of the total number of fish was taken in the ocean greater than 3 miles from shore.

Average catch rates in 1985 were similar to 1979-84 averages for all modes. The private/rental boat mode had the highest catch rate with 8.7 fish/trip. The shore modes (man-made and beach/bank) had the lowest catch rates.

Participation in marine recreational fishing in the Gulf of Mexico during 1985 was considerably higher than the 1979-84 mean of 2.9 million subregion residents. Approximately 4.0 million residents of the subregion fished in 1985. Coastal residents accounted for 73 percent of the estimated 24.2 million trips. Peak fishing activity occurred during the July/August wave with 10 percent of the coastal county population fishing in this wave.

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Spotted seatrout and red drum were the most highly sought species in 1985 as in 1983 and 1984. These two species represented 18 percent of the responses to species sought. As in the South Atlantic, the diversity of species sought was much higher than the North Atlantic and Mid-Atlantic subregions.

The coefficient of variation for the total number of fish caught was 6 percent in 1985. The actual total catch in number of fish was between 127.2 and 158.2 million fish at the 95 percent confidence level. The precision of the estimates for individual species varied greatly, but approximately 65 percent of the species groups had coefficients of variation below 30 percent. The lowest coefficients of variation were observed for saltwater catfishes (7 percent), Atlantic croaker (9 percent) and red drum (10 percent).

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ATLANTIC AND GULF

1985 TABLE FINDING GUIDE

(Subjects by Table Numbers)

	Number of Participants	Residence of Participants	Species Sought	Number of Trips	Catch Per Trip (Frequency)	Catch Per Trip (Mean)	Number of Intercept Interviews	Number of House-holds Interviewed By Telephone
Subregion	31		34	32,33	35	36	37	40
State	31	38,39		32			38,39	40
Coastal, Non-coastal and Out-of-state Residents	31	38		32,33			38	
Mode				33	35	36	37	
Area							37	
Fishing and Non-fishing Households								40
Wave								40
Standard Errors	31			32,33				

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ATLANTIC AND GULF

1985 TABLE FINDING GUIDE
(continued)

(Subjects by Table Numbers)

Catch Type A: Catch available for identification.

Catch Type B: Catch not available for identification.

Catch Type B1: Used for bait, filleted, discarded dead, etc.

Catch Type B2: Released alive.

	A+B	A	B1	B2
Numbers Caught				
Species	1,6-9,16-25, 41,42*	2,43	3,44	4,45
Subregion	1,5,6-12,17-20, 22-25,41,42*	2,5,13-15, 43	3,5,44	4,5,45
State	6-9			
Area	10,12,16-20	13,15		
Mode	11,12,21-25	14,15		
Wave	5	5	5	5
Standard Errors	41,42*	43	44	45
Weight of Catch				
Species		26		
Subregion		26-30		
Area		27,29		
Mode		28,29		
Wave		30		

* Catch type A + B1.

(Continued)

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TABLE 1. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC	MID-ATLANTIC	SOUTH ATLANTIC	GULF	ALL REGIONS
			THOUSANDS		
01. SHARKS		437	548	772	1,774
02. SHARKS, DOGFISH	639	1,669	100	61	2,469
03. SKATES/RAYS	933	491	437	655	2,516
04. EELS	482	226	72	124	904
05. HERRINGS	308	352	5,183	7,727	13,570
06. FRESHWATER CATFISHES	*	347		100	464
07. SALTWATER CATFISHES	*		3,661	20,334	23,996
08. TOADFISHES	50	3,056	436	138	3,680
09. ATLANTIC COD	3,611	62	*	*	3,674
10. ATLANTIC TOMCOD	150	*	*	*	150
11. POLLOCK	2,147		*	*	2,155
12. SILVER HAKE	-	103	*	*	112
13. SEAROBINS	584	3,562	168	46	4,361
14. SCULPINS	578		*	*	597
15. WHITE PERCH	42	1,006	130	*	1,177
16. STRIPED BASS	391	220	53	33	698
17. BLACK SEA BASS	151	7,934	6,215	5,784	20,084
18. GROUPERS	*	*	454	2,885	3,339
19. SEA BASSES		379	372	3,621	4,376
20. BLUEFISH	7,933	13,647	5,494	937	28,010
21. JACK CREVALLE	*	*	1,033	164	1,197
22. BLUE RUNNER	*	*	1,008	935	1,943
23. GREATER AMBERJACK	*	-	161	230	395
24. FLORIDA POMPANO	*	-	836	43	880
25. JACKS	*		427	1,373	1,808
26. DOLPHINS	*	36	787	609	1,432
27. GRAY SNAPPER	*	*	1,082	1,657	2,740
28. RED SNAPPER	*	*	1,285	1,954	3,239
29. LANE SNAPPER	*	*	183	284	467
30. VERMILION SNAPPER	*	*	966	462	1,428
31. YELLOWTAIL SNAPPER	*	*	404	535	938
32. SNAPPERS	*	*	207	187	394
33. PIGFISH	*	62	1,396	1,312	2,770
34. WHITE GRUNT	*	*	557	3,973	4,530
35. GRUNTS	*		2,145	4,513	6,658
36. SCUP	8,424	7,008	-	*	15,447
37. PINFISH	*	-	2,511	9,374	11,887
38. SHEEPSHEAD	*	-	603	2,224	2,828
39. RED PORGY	*	*	238	1,110	1,349
40. PORGIES	*	-	366	334	717

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TABLE 1. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC	MID-ATLANTIC	SOUTH ATLANTIC	GULF	ALL REGIONS
			THOUSANDS		
41. SPOTTED SEATROUT	*		2,024	14,682	16,728
42. WEAKFISH	_	3,099	359	*	3,486
43. SAND SEATROUT	*	*	*	9,509	9,509
44. SILVER PERCH	*	_	181	1,734	1,924
45. SPOT	*	12,142	13,052	49	25,243
46. KINGFISHES	*	82	2,461	3,537	6,079
47. ATLANTIC CROAKER	*	5,553	5,869	12,264	23,686
48. BLACK DRUM	*	_	263	1,089	1,362
49. RED DRUM	*		1,292	4,110	5,404
50. DRUMS	*	_	811	2,052	2,872
51. MULLETS	*	338	4,283	7,162	11,783
52. BARRACUDAS	*	*	287	108	396
53. TAUTOG	566	3,573		*	4,148
54. CUNNER	1,680	1,505	*	*	3,185
55. LITTLE TUNNY/ATL.BONITO		187	359	287	844
56. ATLANTIC MACKEREL	4,984	3,300	_	*	8,300
57. KING MACKEREL	*		947	235	1,183
58. SPANISH MACKEREL	*	*	711	1,452	2,163
59. TUNAS/MACKERELS		187	595	201	1,013
60. SUMMER FLOUNDER	535	15,236	2,431	*	18,202
61. GULF FLOUNDER	*	*		502	512
62. SOUTHERN FLOUNDER	*		593	1,960	2,558
63. WINTER FLOUNDER	8,427	22,632	*	*	31,059
64. FLOUNDERS	1,097	2,325	45	424	3,891
65. TRIGGERFISHES/FILEFISHES	*		283	339	648
66. PUFFERS		377	449	157	1,009
67. OTHER FISHES	1,823	2,622	2,642	6,350	13,437
TOTALS	45,662	113,898	79,523	142,695	381,778

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.
NOTE: SEE TABLES 41 THROUGH 45 FOR STANDARD ERRORS OF THE ESTIMATED NUMBER OF FISH CAUGHT.

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

TABLE 2. ESTIMATED NUMBER OF FISH CAUGHT (CATCH TYPE A) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION
JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC	MID-ATLANTIC	SOUTH ATLANTIC	GULF	ALL REGIONS
			THOUSANDS		
01. SHARKS	*	58	146	246	450
02. SHARKS, DOGFISH	-	108	-	*	120
03. SKATES/RAYS	-	-	-	-	63
04. EELS	39	158	*	-	197
05. HERRINGS	44	72		-	155
06. FRESHWATER CATFISHES	*	165	-	-	179
07. SALTWATER CATFISHES	*	*	469	383	852
08. TOADFISHES	-	37	-	-	52
09. ATLANTIC COD	889	57	*	*	945
10. ATLANTIC TOMCOD	115	*	*	*	115
11. POLLOCK	234		*	*	241
12. SILVER HAKE	-	99	*	*	102
13. SEAROBINS	34	202	*	-	236
14. SCULPINS	-	-	*	*	
15. WHITE PERCH	*	528	122	*	680
16. STRIPED BASS	43	33	-	-	98
17. BLACK SEA BASS	32	3,450	3,709	2,293	9,483
18. GROUPERS	*	*	315	1,200	1,514
19. SEA BASSES			177	138	320
20. BLUEFISH	5,119	7,508	3,514	318	16,459
21. JACK CREVALLE	*	*	414	34	447
22. BLUE RUNNER	*	*	117	63	180
23. GREATER AMBERJACK	*	*	87	185	272
24. FLORIDA POMPANO	*	-	402	-	422
25. JACKS	*	-	54	128	184
26. DOLPHINS	*	-	543	126	697
27. GRAY SNAPPER	*	*	630	502	1,132
28. RED SNAPPER	*	*	993	1,459	2,453
29. LANE SNAPPER	*	*	92	284	377
30. VERMILION SNAPPER	*	*	455	144	599
31. YELLOWTAIL SNAPPER	*	*	49	333	383
32. SNAPPERS	*	*	63	76	139
33. PIGFISH	*	31	815	153	1,000
34. WHITE GRUNT	*	*	178	1,892	2,070
35. GRUNTS	*		732	732	1,465
36. SCUP	5,268	5,816	-	*	11,084
37. PINFISH	*	-	538	423	962
38. SHEEPSHEAD	*	*	449	1,006	1,455
39. RED PORGY	*	*	176	260	435
40. PORGIES	*	-	185	120	319

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TABLE 2. ESTIMATED NUMBER OF FISH CAUGHT (CATCH TYPE A) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION
JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC	MID-ATLANTIC	SOUTH ATLANTIC	GULF	ALL REGIONS
			THOUSANDS		
41. SPOTTED SEATROUT	*		1,654	6,273	7,944
42. WEAKFISH	_	2,025	303	*	2,356
43. SAND SEATROUT	*	*	*	4,078	4,078
44. SILVER PERCH	*	*	113	198	310
45. SPOT	*	7,561	8,099	39	15,699
46. KINGFISHES	*	56	1,704	892	2,652
47. ATLANTIC CROAKER	*	3,074	2,200	2,598	7,872
48. BLACK DRUM	*	_	230	649	890
49. RED DRUM	*	*	757	1,741	2,498
50. DRUMS	*		750	625	1,375
51. MULLETS	*	51	1,734	543	2,327
52. BARRACUDAS	*	*	52	64	116
53. TAUTOG	306	2,469		*	2,783
54. CUNNER	127		_	*	151
55. LITTLE TUNNY/ATL.BONITO		107	134	105	357
56. ATLANTIC MACKEREL	895	2,859	*	*	3,754
57. KING MACKEREL	*		803	170	973
58. SPANISH MACKEREL	*	_	573	845	1,418
59. TUNAS/MACKERELS		86	444	95	654
60. SUMMER FLOUNDER	216	7,568	1,489	*	9,274
61. GULF FLOUNDER	*	*		378	388
62. SOUTHERN FLOUNDER	*		389	982	1,375
63. WINTER FLOUNDER	4,584	14,946	*	*	19,529
64. FLOUNDERS	_	56	_	72	141
65. TRIGGERFISHES/FILEFISHES	*		194	214	418
66. PUFFERS		124	140		273
67. OTHER FISHES	218	1,051	636	379	2,284
TOTALS	18,304	60,478	37,930	33,518	150,230

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.
NOTE: SEE TABLES 41 THROUGH 45 FOR STANDARD ERRORS OF THE ESTIMATED NUMBER OF FISH CAUGHT.

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

CATCH TYPE A: AN ESTIMATE OF PART OF THE TOTAL CATCH BASED ON FISH BROUGHT ASHORE IN WHOLE FORM, AVAILABLE FOR INTERVIEWER IDENTIFICATION AND ENUMERATION, FROM WHICH SAMPLES OF LENGTHS AND WEIGHTS WERE OBTAINED.

TABLE 3. ESTIMATED NUMBER OF FISH CAUGHT (CATCH TYPE B1) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION
JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC	MID-ATLANTIC	SOUTH ATLANTIC	GULF	ALL REGIONS
			THOUSANDS		
01. SHARKS		39	118	201	359
02. SHARKS, DOGFISH	68	115	33		227
03. SKATES/RAYS		-	129	137	299
04. EELS	50	-	-	-	92
05. HERRINGS	246	227	4,747	7,531	12,751
06. FRESHWATER CATFISHES	*		*	*	
07. SALTWATER CATFISHES	*	*	235	2,662	2,897
08. TOADFISHES	*	367	110	-	483
09. ATLANTIC COD	2,317		*	*	2,318
10. ATLANTIC TOMCOD	35	*	*	*	35
11. POLLOCK	1,626	*	*	*	1,626
12. SILVER HAKE	-	-	*	*	-
13. SEAROBINS		165			203
14. SCULPINS	271	*	*	*	271
15. WHITE PERCH	*	65	*	*	65
16. STRIPED BASS	105	-	-	31	159
17. BLACK SEA BASS	63	1,394	609	1,056	3,122
18. GROUPERS	*	*	48	1,054	1,102
19. SEA BASSES	*	150	57	465	671
20. BLUEFISH	2,098	4,321	1,199	226	7,844
21. JACK CREVALLE	*	*	48	80	128
22. BLUE RUNNER	*	*	417	168	585
23. GREATER AMBERJACK	*			46	67
24. FLORIDA POMPANO	*	*	80	-	99
25. JACKS	*	*	218	649	867
26. DOLPHINS	*		237	477	715
27. GRAY SNAPPER	*	*	71	486	557
28. RED SNAPPER	*	*	92	217	309
29. LANE SNAPPER	*	*	54	*	54
30. VERMILION SNAPPER	*	*	493	292	785
31. YELLOWTAIL SNAPPER	*	*	297	107	404
32. SNAPPERS	*	*	60	60	120
33. PIGFISH	*		46	201	248
34. WHITE GRUNT	*	*	108	1,010	1,118
35. GRUNTS	*	*	677	1,107	1,784
36. SCUP	710	425	-	*	1,142
37. PINFISH	*		133	2,677	2,812
38. SHEEPSHEAD	*	*	65	597	662
39. RED PORGY	*	*	36	521	557
40. PORGIES	*	-	33	167	200

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TABLE 3. ESTIMATED NUMBER OF FISH CAUGHT (CATCH TYPE B1) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION
JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC	MID-ATLANTIC	SOUTH ATLANTIC	GULF	ALL REGIONS
			THOUSANDS		
41. SPOTTED SEATROUT	*		242	3,501	3,743
42. WEAKFISH	*	661	40	*	701
43. SAND SEATROUT	*	*	*	4,266	4,266
44. SILVER PERCH	*	_	_	252	270
45. SPOT	*	1,412	3,767		5,179
46. KINGFISHES	*		331	2,149	2,494
47. ATLANTIC CROAKER	*	329	519	2,194	3,042
48. BLACK DRUM	*	*	_	125	138
49. RED DRUM	*	*	270	530	801
50. DRUMS	*		58	1,154	1,214
51. MULLETS	*	69	2,272	6,038	8,378
52. BARRACUDAS	*	*	68	_	77
53. TAUTOG	152	282	*	*	434
54. CUNNER	326	47	*	*	373
55. LITTLE TUNNY/ATL.BONITO		73	124	80	277
56. ATLANTIC MACKEREL	3,854	114	_	*	3,985
57. KING MACKEREL	*	*	125	56	181
58. SPANISH MACKEREL	*	*	78	481	558
59. TUNAS/MACKERELS		63	94	104	262
60. SUMMER FLOUNDER	281	5,160	420	*	5,861
61. GULF FLOUNDER	*	*	*		
62. SOUTHERN FLOUNDER	*	*	104	268	372
63. WINTER FLOUNDER	2,611	988	*	*	3,599
64. FLOUNDERS	461	1,375	_	193	2,031
65. TRIGGERFISHES/FILEFISHES	*	_		59	90
66. PUFFERS	*		60		102
67. OTHER FISHES	1,264	308	215	1,149	2,936
TOTALS	16,573	18,279	19,365	44,934	99,151

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.
NOTE: SEE TABLES 41 THROUGH 45 FOR STANDARD ERRORS OF THE ESTIMATED NUMBER OF FISH CAUGHT.

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

CATCH TYPE B1: AN ESTIMATE OF PART OF THE TOTAL CATCH BASED ON FISH NOT AVAILABLE IN WHOLE FORM FOR INTERVIEWER'S IDENTIFICATION, AS REPORTED BY FISHERMEN. INCLUDED ARE THOSE FISH USED AS BAIT, FILLETED, GIVEN AWAY, DISCARDED DEAD, ETC., EXCLUDING FISH RELEASED ALIVE.

TABLE 4. ESTIMATED NUMBER OF FISH CAUGHT (CATCH TYPE B2) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION
JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC	MID-ATLANTIC	SOUTH ATLANTIC	GULF	ALL REGIONS
			THOUSANDS		
01. SHARKS		340	283	326	964
02. SHARKS, DOGFISH	567	1,445	60	50	2,122
03. SKATES/RAYS	908	462	293	492	2,154
04. EELS	393	61	58	102	615
05. HERRINGS		53	412	181	664
06. FRESHWATER CATFISHES	*	161		93	264
07. SALTWATER CATFISHES	*		2,957	17,289	20,247
08. TOADFISHES	48	2,652	314	132	3,146
09. ATLANTIC COD	405		*	*	410
10. ATLANTIC TOMCOD		*	*	*	
11. POLLOCK	287		*	*	287
12. SILVER HAKE	-	*	*	*	-
13. SEAROBINS	526	3,196	156	44	3,922
14. SCULPINS	304		*	*	323
15. WHITE PERCH		413		*	433
16. STRIPED BASS	243	177	-	-	441
17. BLACK SEA BASS	57	3,090	1,897	2,435	7,479
18. GROUPERS	*	*	91	631	722
19. SEA BASSES		226	138	3,019	3,384
20. BLUEFISH	716	1,818	782	392	3,708
21. JACK CREVALLE	*	*	572	50	621
22. BLUE RUNNER	*	*	475	704	1,178
23. GREATER AMBERJACK	*		54	*	56
24. FLORIDA POMPANO	*	*	354	-	359
25. JACKS	*		155	596	757
26. DOLPHINS	*	-			
27. GRAY SNAPPER	*	*	382	669	1,052
28. RED SNAPPER	*	*	199	278	477
29. LANE SNAPPER	*	*	37	*	37
30. VERMILION SNAPPER	*	*			43
31. YELLOWTAIL SNAPPER	*	*	57	95	152
32. SNAPPERS	*	*	84	51	135
33. PIGFISH	*	30	534	958	1,522
34. WHITE GRUNT	*	*	271	1,071	1,343
35. GRUNTS	*	*	735	2,674	3,409
36. SCUP	2,446	767	-	*	3,222
37. PINFISH	*	*	1,840	6,273	8,113
38. SHEEPSHEAD	*		90	620	710
39. RED PORGY	*	*		330	357
40. PORGIES	*	-	147	47	197

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TABLE 4. ESTIMATED NUMBER OF FISH CAUGHT (CATCH TYPE B2) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION
JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC	MID-ATLANTIC	SOUTH ATLANTIC	GULF	ALL REGIONS
			THOUSANDS		
41. SPOTTED SEATROUT	*		128	4,908	5,041
42. WEAKFISH	*	413		*	429
43. SAND SEATROUT	*	*	*	1,165	1,165
44. SILVER PERCH	*	*	60	1,284	1,344
45. SPOT	*	3,170	1,186		4,365
46. KINGFISHES	*		426	496	933
47. ATLANTIC CROAKER	*	2,149	3,150	7,472	12,772
48. BLACK DRUM	*	-	-	315	334
49. RED DRUM	*	-	265	1,839	2,105
50. DRUMS	*			273	284
51. MULLETS	*	218	277	582	1,077
52. BARRACUDAS	*	*	167	35	203
53. TAUTOG	108	822		*	931
54. CUNNER	1,227	1,434	*	*	2,662
55. LITTLE TUNNY/ATL.BONITO	*		101	102	210
56. ATLANTIC MACKEREL	234	327	*	*	561
57. KING MACKEREL	*	*			
58. SPANISH MACKEREL	*	*	60	126	187
59. TUNAS/MACKERELS	*	38	57		98
60. SUMMER FLOUNDER	38	2,508	522	*	3,068
61. GULF FLOUNDER	*	*	*	102	102
62. SOUTHERN FLOUNDER	*		100	711	811
63. WINTER FLOUNDER	1,231	6,699	*	*	7,930
64. FLOUNDERS	628	895	37	159	1,719
65. TRIGGERFISHES/FILEFISHES	*		68	65	140
66. PUFFERS		233	249	128	634
67. OTHER FISHES	341	1,262	1,791	4,822	8,217
TOTALS	10,785	35,141	22,228	64,243	132,396

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.
NOTE: SEE TABLES 41 THROUGH 45 FOR STANDARD ERRORS OF THE ESTIMATED NUMBER OF FISH CAUGHT.

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

CATCH TYPE B2: AN ESTIMATE OF PART OF THE TOTAL CATCH BASED ON FISH RELEASED ALIVE, AS REPORTED BY THE FISHERMEN.

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END OF TABLE.

TABLE 8. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY TYPE, WAVE, AND SUBREGION, JAN 1985--DEC 1985

WAVE SUBREGION	CATCH TYPE A	CATCH TYPE B1	CATCH TYPE B2	TOTAL
	----------	THOUSANDS	----------	
JAN/FEB				
SOUTH ATLANTIC	3,152	1,305	2,170	6,628
GULF	5,885	3,468	6,352	15,704
TOTALS	9,037	4,773	8,522	22,332
MAR/APR				
NORTH ATLANTIC	2,019	1,648	1,207	4,874
MID ATLANTIC	14,820	320	5,400	20,540
SOUTH ATLANTIC	5,052	4,138	1,840	11,030
GULF	3,401	3,770	6,306	13,477
TOTALS	25,292	9,876	14,753	49,921
MAY/JUN				
NORTH ATLANTIC	4,101	4,297	3,964	12,362
MID ATLANTIC	11,501	4,625	6,408	22,534
SOUTH ATLANTIC	4,592	2,627	3,325	10,544
GULF	5,824	4,299	13,163	23,286
TOTALS	26,018	15,849	26,860	68,727
JUL/AUG				
NORTH ATLANTIC	5,537	5,365	2,287	13,189
MID ATLANTIC	13,795	5,057	12,090	30,942
SOUTH ATLANTIC	9,366	3,606	6,977	19,949
GULF	7,886	23,707	22,236	53,829
TOTALS	36,584	37,734	43,590	117,908
SEP/OCT				
NORTH ATLANTIC	5,758	3,781	3,058	12,598
MID ATLANTIC	17,634	7,926	9,253	34,814
SOUTH ATLANTIC	11,755	6,051	5,596	23,402
GULF	5,794	5,796	11,494	23,084
TOTALS	40,942	23,554	29,401	93,897
NOV/DEC				
NORTH ATLANTIC	889	1,482	268	2,639
MID ATLANTIC	2,727	351	1,990	5,068
SOUTH ATLANTIC	4,013	1,638	2,320	7,971
GULF	4,728	3,895	4,692	13,314
TOTALS	12,356	7,366	9,269	28,992
GRAND TOTALS	150,230	99,151	132,396	381,778

NOTE: REFER TO TABLES 2, 3, AND 4 FOR DEFINITIONS OF CATCH TYPE A, CATCH TYPE B1, AND CATCH TYPE B2, RESPECTIVELY.

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

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TABLE 6. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN, BY SPECIES GROUP AND STATE, NORTH ATLANTIC SUBREGION
JAN 1985--DEC 1985

SPECIES GROUP	MAINE	NEW HAMPSHIRE	MASSACHUSETTS	RHODE ISLAND	CONNECTICUT	TOTALS
	THOUSANDS					
01. SHARKS	*		*			
02. SHARKS, DOGFISH	41	_	_	542	33	639
03. SKATES/RAYS	35	36	664		192	933
04. EELS	_	*	197	248	35	482
05. HERRINGS	_	*	73	_	230	308
08. TOADFISHES	*	*	*	48	_	50
09. ATLANTIC COD	1,006	128	1,566	902	_	3,611
10. ATLANTIC TOMCOD	_	*	*	119	_	150
11. POLLOCK	319	50	1,767	_	*	2,147
12. SILVER HAKE	*	*	_	*	*	
13. SEAROBINS	*	*	131	64	389	584
14. SCULPINS	525	44	_	_	_	578
15. WHITE PERCH	*	*				42
16. STRIPED BASS	177	_	123	50	41	391
17. BLACK SEA BASS	*	*	36	48	67	151
19. SEA BASSES	*	*	*	_	_	_
20. BLUEFISH	100	_	985	2,495	4,351	7,933
36. SCUP	*	*	1,027	425	6,972	8,424
42. WEAKFISH	*	*	*			
53. TAUTOG	*	*	179	144	244	566
54. CUNNER			418	929	323	1,680
55. LITTLE TUNNY/ATL.BONITO	_	_	*		*	
56. ATLANTIC MACKEREL	3,427	132	1,095	259	72	4,984
59. TUNAS/MACKERELS	*	*	*	_	_	_
60. SUMMER FLOUNDER	*	*	52	277	206	535
63. WINTER FLOUNDER		33	4,996	1,967	1,413	8,427
64. FLOUNDERS	66	*	1,001	*	30	1,097
66. PUFFERS	*	*	_	*	_	_
67. OTHER FISHES	693	_	819	195	101	1,823
TOTALS	6,450	443	15,207	8,830	14,733	45,662

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW & COLUMN TOTALS.

TABLE 7. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN, BY SPECIES GROUP AND STATE, MID-ATLANTIC SUBREGION
JAN 1985--DEC 1985

SPECIES GROUP	NEW YORK	NEW JERSEY	DELAWARE	MARYLAND	VIRGINIA	TOTALS
	THOUSANDS					
01. SHARKS	78	126	176	-	51	437
02. SHARKS, DOGFISH	304	1,329	-	-		1,669
03. SKATES/RAYS	348		-	-	96	491
04. EELS	55	140	*	-	-	226
05. HERRINGS	288		*		56	352
06. FRESHWATER CATFISHES	*	*		258	64	347
07. SALTWATER CATFISHES	*	*	*		*	
08. TOADFISHES	161	-	115	1,051	1,722	3,056
09. ATLANTIC COD	62	*	*	*	*	62
11. POLLOCK	-	*	*		*	
12. SILVER HAKE	*	103	*	-	*	103
13. SEAROBINS	1,864	1,007	-	36	654	3,562
14. SCULPINS		*	*	*	*	
15. WHITE PERCH	-			954	38	1,006
16. STRIPED BASS	95	-	-	102		220
17. BLACK SEA BASS	554	3,621	51	474	3,234	7,934
19. SEA BASSES		160	*	70	142	379
20. BLUEFISH	5,130	4,249	170	2,611	1,487	13,647
23. GREATER AMBERJACK	*	*	*	*		
24. FLORIDA POMPANO	*	*	*	*	-	-
					-	-
25. JACKS			*	*	*	
26. DOLPHINS	-	-	*			36
33. PIGFISH	-	*	*	*	62	62
35. GRUNTS	*	*	*	*		
					-	-
36. SCUP	6,772	192	*	*	44	7,008
37. PINFISH	*	*	*	*	-	-
38. SHEEPSHEAD	*	*	*	*		
40. PORGIES	*	-	*	-	-	-
41. SPOTTED SEATROUT	*	*	*			
42. WEAKFISH	113	1,302	404	363	917	3,099
44. SILVER PERCH	*	*	*	*		
45. SPOT	47	-	*	957	11,123	12,142

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TABLE 7. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN, BY SPECIES GROUP AND STATE, MID-ATLANTIC SUBREGION
JAN 1985--DEC 1985

SPECIES GROUP	NEW YORK	NEW JERSEY	DELAWARE	MARYLAND	VIRGINIA	TOTALS
	THOUSANDS					
46. KINGFISHES	*		*		58	82
47. ATLANTIC CROAKER	*	*	*	39	5,514	5,553
48. BLACK DRUM	*	*				
49. RED DRUM	*	*	*	*		
50. DRUMS	*	*	*			
51. MULLETS	*	309	*	*		338
53. TAUTOG	2,127	1,074	41		331	3,573
54. CUNNER	1,340	165	*	*		1,505
55. LITTLE TUNNY/ATL.BONITO	88	92				187
56. ATLANTIC MACKEREL	714	2,443	55	*	88	3,300
57. KING MACKEREL	*	*	*	*		
59. TUNAS/MACKERELS	64	105	*			187
60. SUMMER FLOUNDER	1,861	11,430	179	165	1,602	15,236
62. SOUTHERN FLOUNDER	*	*	*	*		
63. WINTER FLOUNDER	15,146	7,468	*			22,632
64. FLOUNDERS	187	1,888	*		232	2,325
65. TRIGGERFISHES/FILEFISHES			*	*		
66. PUFFERS	183	83	*	31	80	377
67. OTHER FISHES	1,283	745		461	133	2,622
TOTALS	38,911	38,188	1,233	7,651	27,915	113,898

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW & COLUMN TOTALS.

END OF TABLE

TABLE 8. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN, BY SPECIES GROUP AND STATE, SOUTH ATLANTIC SUBREGION
JAN 1985--DEC 1985

SPECIES GROUP	NORTH CAROLINA	SOUTH CAROLINA	GEORGIA	FLORIDA	SUBREGION TOTALS
			THOUSANDS		
01. SHARKS	116	134	47	251	548
02. SHARKS, DOGFISH	70	-	-	-	100
03. SKATES/RAYS	261	-	38	111	437
04. EELS	-	-	-	-	72
05. HERRINGS	306	-	118	4,751	5,183
06. FRESHWATER CATFISHES	*	*	-	*	-
07. SALTWATER CATFISHES	-	345	471	2,818	3,661
08. TOADFISHES	59	169	65	144	436
13. SEAROBINS	164	*	-	-	168
15. WHITE PERCH	130	*	*	*	130
16. STRIPED BASS	-	*	-	40	53
17. BLACK SEA BASS	3,366	1,231	106	1,512	6,215
18. GROUPERS	49	42	-	355	454
19. SEA BASSES	76	43	-	244	372
20. BLUEFISH	3,402	571	139	1,381	5,494
21. JACK CREVALLE	60	-	35	927	1,033
22. BLUE RUNNER	-	-	-	1,005	1,008
23. GREATER AMBERJACK	-	-	-	117	161
24. FLORIDA POMPANO	481	70	-	285	836
25. JACKS	-	-	*	407	427
26. DOLPHINS	37	62	-	687	787
27. GRAY SNAPPER	116	-	*	947	1,082
28. RED SNAPPER	532	52	-	690	1,285
29. LANE SNAPPER	*	*	*	183	183
30. VERMILION SNAPPER	*	286	-	656	966
31. YELLOWTAIL SNAPPER	*	*	*	404	404
32. SNAPPERS	-	-	*	183	207
33. PIGFISH	1,364	-	-	*	1,396
34. WHITE GRUNT	*	65	*	492	557
35. GRUNTS	-	322	-	1,783	2,145
36. SCUP	*	-	-	*	-
37. PINFISH	1,553	305	-	629	2,511

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TABLE 8. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN, BY SPECIES GROUP AND STATE, SOUTH ATLANTIC SUBREGION
JAN 1985--DEC 1985

SPECIES GROUP	NORTH CAROLINA	SOUTH CAROLINA	GEORGIA	FLORIDA	SUBREGION TOTALS
			THOUSANDS		
38. SHEEPSHEAD		96	35	469	603
39. RED PORGY	_	118		120	238
40. PORGIES	44	34	_	287	366
41. SPOTTED SEATROUT	254	325	424	1,022	2,024
42. WEAKFISH	245	59		48	359
44. SILVER PERCH	*	51	87	44	181
45. SPOT	9,149	2,629	81	1,193	13,052
46. KINGFISHES	805	239	155	1,261	2,461
47. ATLANTIC CROAKER	2,446	440	270	2,714	5,869
48. BLACK DRUM			45	198	263
49. RED DRUM	_	456	273	541	1,292
50. DRUMS	740	*	_	70	811
51. MULLETS	482	481	228	3,092	4,283
52. BARRACUDAS	*	_		248	287
53. TAUTOG		_	*	*	
55. LITTLE TUNNY/ATL.BONITO	160	_	_	188	359
56. ATLANTIC MACKEREL		*	*	*	
57. KING MACKEREL	430	157		350	947
58. SPANISH MACKEREL	532	57	_	114	711
59. TUNAS/MACKERELS	392	41	*	162	595
60. SUMMER FLOUNDER	2,400	*			2,431
61. GULF FLOUNDER	*	*	_	_	
62. SOUTHERN FLOUNDER	_	225	40	325	593
64. FLOUNDERS	_	*	_	39	45
65. TRIGGERFISHES/FILEFISHES				246	283
66. PUFFERS	374	32	_	38	449
67. OTHER FISHES	1,299	92	38	1,212	2,642
TOTALS	32,107	9,448	2,901	35,067	79,523

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW & COLUMN TOTALS.

END OF TABLE

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TABLE 9. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN, BY SPECIES GROUP AND STATE, GULF SUBREGION
JAN 1985--DEC 1985

SPECIES GROUP	FLORIDA	ALABAMA	MISSISSIPPI	LOUISIANA	TEXAS	TOTALS
	THOUSANDS					
01. SHARKS	582			60	101	772
02. SHARKS, DOGFISH	51	*	*			61
03. SKATES/RAYS	418			176	50	655
04. EELS	62	*	30	-	-	124
05. HERRINGS	7,515	50	131	31	*	7,727
06. FRESHWATER CATFISHES	*	70				100
07. SALTWATER CATFISHES	6,910	-	248	5,690	7,485	20,334
08. TOADFISHES	62	-	-	48	-	138
13. SEAROBINS		*			*	46
16. STRIPED BASS	31	*	*	-	*	33
17. BLACK SEA BASS	5,784	*	*	*	*	5,784
18. GROUPERS	2,851	-	*	-	*	2,885
19. SEA BASSES	3,606	*	*			3,621
20. BLUEFISH	88	168	-	359	314	937
21. JACK CREVALLE	116					164
22. BLUE RUNNER	848	64	-	-	-	935
23. GREATER AMBERJACK	164	*	*	67	*	230
24. FLORIDA POMPANO	31		*			43
25. JACKS	1,231	-		64	49	1,373
26. DOLPHINS	596	-	-	*	-	609
27. GRAY SNAPPER	1,657	*	*	*	*	1,657
28. RED SNAPPER	297	453		523	680	1,954
29. LANE SNAPPER	283	*	*	*		284
30. VERMILION SNAPPER	413	*	*	49	*	462
31. YELLOWTAIL SNAPPER	532	*	*		*	535
32. SNAPPERS	148	*	*	37		187
33. PIGFISH	587	*	*	*	726	1,312
34. WHITE GRUNT	3,973	*	*	*	*	3,973
35. GRUNTS	4,503		*		*	4,513
37. PINFISH	6,469	355	95	934	1,521	9,374
38. SHEEPSHEAD	1,378	49	35	533	229	2,224
39. RED PORGY	1,110	*	*	*	*	1,110

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TABLE 9. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN, BY SPECIES GROUP AND STATE, GULF SUBREGION
JAN 1985--DEC 1985

SPECIES GROUP	FLORIDA	ALABAMA	MISSISSIPPI	LOUISIANA	TEXAS	TOTALS
	THOUSANDS					
40. PORGIES	219	*		103		334
41. SPOTTED SEATROUT	5,923	52	183	5,809	2,715	14,682
43. SAND SEATROUT	5,114	237	1,102	1,459	1,597	9,509
44. SILVER PERCH	1,728	*	–	*	–	1,734
45. SPOT	39				*	49
46. KINGFISHES	3,073	–	36	39	377	3,537
47. ATLANTIC CROAKER	3,759	130	742	2,754	4,879	12,264
48. BLACK DRUM	210	–	–	433	435	1,089
49. RED DRUM	765	30	52	1,504	1,758	4,110
50. DRUMS	1,950		*	99		2,052
51. MULLETS	6,534	91	275	94	168	7,162
52. BARRACUDAS	107	*	*	–	*	108
55. LITTLE TUNNY/ATL.BONITO	189			44		287
57. KING MACKEREL	123	62	–		–	235
58. SPANISH MACKEREL	650	141	471	157	32	1,452
59. TUNAS/MACKERELS	199	*	*	–	–	201
61. GULF FLOUNDER	180	*	*		312	502
62. SOUTHERN FLOUNDER	118	49	–	819	964	1,960
64. FLOUNDERS	322	*		73	–	424
65. TRIGGERFISHES/FILEFISHES	173	75	*	75	–	339
66. PUFFERS	130		*		*	157
67. OTHER FISHES	3,889	97	–	2,102	255	6,350
TOTALS	87,710	2,295	3,561	24,301	24,827	142,695

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW & COLUMN TOTALS.

END OF TABLE

TABLE 10. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SUBREGION AND AREA OF FISHING, JAN 1985--DEC 1985

SUBREGION	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
	THOUSANDS						
NORTH ATLANTIC	13,458	10,127	*	*	21,996	81	45,662
MID ATLANTIC	23,038	17,942	*	*	72,844	74	113,898
SOUTH ATLANTIC	39,122	15,119	*	*	25,282	*	79,523
GULF	81,633	4,203	12,064	14,128	30,353	315	142,695
TOTALS	157,251	47,391	12,064	14,128	150,474	470	381,778

1. THIS CATEGORY INCLUDES "MISSING DATA" ON AREA, AND LOCAL VARIATION IN MARINE GEOGRAPHIC TERMINOLOGY WHICH SOMETIMES PREVENTED INTERVIEWERS FROM DETERMINING ACCEPTABLE ANSWERS TO QUESTIONS ON "DISTANCE FROM SHORE."

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: "OCEAN 3-10 MI" AND "OCEAN OVER 10 MI" REFER ONLY TO TEXAS AND FLORIDA GULF COASTS WHERE STATE JURIDICTION EXTENDS TO THREE MARINE LEAGUES, APPROXIMATELY TEN NAUTICAL MILES. THE TOTAL OCEAN ESTIMATE IS ADDITIVE ACROSS THE FOUR AREAS.

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TABLE 11. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SUBREGION AND MODE OF FISHING, JAN 1985--DEC 1985

SUBREGION	MAN-MADE	BEACH/BANK	PARTY/CHARTER	PRIVATE/RENTAL	ALL MODES
	THOUSANDS				
NORTH ATLANTIC	3,901	2,557	10,638	28,565	45,662
MID ATLANTIC	8,626	7,092	19,678	78,501	113,898
SOUTH ATLANTIC	27,300	9,570	13,421	29,233	79,523
GULF	21,327	13,966	10,684	96,718	142,695
TOTALS	61,154	33,185	54,421	233,018	381,778

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TABLE 12. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY AREA OF FISHING AND MODE OF FISHING FOR EACH SUBREGION
JAN 1985--DEC 1985

MODE	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
				THOUSANDS			
NORTH ATLANTIC							
MAN-MADE	1,266	*	*	*	2,635	*	3,901
BEACH/BANK	1,026	*	*	*	1,531	*	2,557
PARTY/CHARTER	3,101	6,087	*	*	1,368	81	10,638
PRIVATE/RENTAL	8,064	4,040	*	*	16,461	*	28,565
TOTALS	13,458	10,127	0	0	21,996	81	45,662
MID ATLANTIC							
MAN-MADE	3,231	*	*	*	5,368	27	8,626
BEACH/BANK	1,668	*	*	*	5,424	*	7,092
PARTY/CHARTER	1,556	11,063	*	*	7,059	1	19,678
PRIVATE/RENTAL	16,584	6,879	*	*	54,993	45	78,501
TOTALS	23,038	17,942	0	0	72,844	74	113,898
SOUTH ATLANTIC							
MAN-MADE	21,050	*	*	*	6,249	*	27,300
BEACH/BANK	7,617	*	*	*	1,952	*	9,570
PARTY/CHARTER	2,279	8,257	*	*	2,885	*	13,421
PRIVATE/RENTAL	8,176	6,861	*	*	14,196	*	29,233
TOTALS	39,122	15,119	0	0	25,282	0	79,523
GULF							
MAN-MADE	14,147	*	*	*	6,920	260	21,327
BEACH/BANK	6,282	*	*	*	7,670	14	13,966
PARTY/CHARTER	3,526	2,235	832	3,166	889	35	10,684
PRIVATE/RENTAL	57,678	1,968	11,231	10,962	14,874	5	96,718
TOTALS	81,633	4,203	12,064	14,128	30,353	315	142,695

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.
NOTE: "OCEAN 3-10 MI" AND "OCEAN OVER 10 MI" REFER ONLY TO TEXAS AND FLORIDA GULF COASTS WHERE STATE JURIDICTION EXTENDS TO THREE MARINE LEAGUES, APPROXIMATELY TEN NAUTICAL MILES. THE TOTAL OCEAN ESTIMATE IS ADDITIVE ACROSS THE FOUR AREAS.

1. THIS CATEGORY INCLUDES "MISSING DATA" ON AREA, AND LOCAL VARIATION IN MARINE GEOGRAPHIC TERMINOLOGY WHICH SOMETIMES PREVENTED INTERVIEWERS FROM DETERMINING ACCEPTABLE ANSWERS TO QUESTIONS ON "DISTANCE FROM SHORE."

TABLE 13. ESTIMATED NUMBER OF FISH CAUGHT (CATCH TYPE A) BY MARINE RECREATIONAL FISHERMEN BY SUBREGION AND AREA OF FISHING
JAN 1985--DEC 1985

SUBREGION	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
	THOUSANDS						
NORTH ATLANTIC	3,296	2,927	*	*	12,009	73	18,304
MID ATLANTIC	10,068	8,893	*	*	41,467	50	60,478
SOUTH ATLANTIC	16,464	8,314	*	*	13,152	*	37,930
GULF	13,385	2,635	2,919	6,105	8,358	115	33,518
TOTALS	43,213	22,769	2,919	6,105	74,986	238	150,230

1. THIS CATEGORY INCLUDES "MISSING DATA" ON AREA, AND LOCAL VARIATION IN MARINE GEOGRAPHIC TERMINOLOGY WHICH SOMETIMES PREVENTED INTERVIEWERS FROM DETERMINING ACCEPTABLE ANSWERS TO QUESTIONS ON "DISTANCE FROM SHORE."

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: "OCEAN 3-10 MI" AND "OCEAN OVER 10 MI" REFER ONLY TO TEXAS AND FLORIDA GULF COASTS WHERE STATE JURIDICTION EXTENDS TO THREE MARINE LEAGUES, APPROXIMATELY TEN NAUTICAL MILES. THE TOTAL OCEAN ESTIMATE IS ADDITIVE ACROSS THE FOUR AREAS.

CATCH TYPE A: AN ESTIMATE OF PART OF THE TOTAL CATCH BASED ON FISH BROUGHT ASHORE IN WHOLE FORM, AVAILABLE FOR INTERVIEWER IDENTIFICATION AND ENUMERATION, FROM WHICH SAMPLES OF LENGTHS AND WEIGHTS WERE OBTAINED.

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TABLE 14. ESTIMATED NUMBER OF FISH CAUGHT (CATCH TYPE A) BY MARINE RECREATIONAL FISHERMEN BY SUBREGION AND MODE OF FISHING
JAN 1985--DEC 1985

SUBREGION	MAN-MADE	BEACH/BANK	PARTY/CHARTER	PRIVATE/RENTAL	ALL MODES
	THOUSANDS				
NORTH ATLANTIC	1,775	811	1,956	13,763	18,304
MID ATLANTIC	4,246	3,729	11,211	41,293	60,478
SOUTH ATLANTIC	11,136	4,577	8,481	13,735	37,930
GULF	3,193	3,794	6,401	20,130	33,518
TOTALS	20,350	12,911	28,048	88,921	150,230

CATCH TYPE A: AN ESTIMATE OF PART OF THE TOTAL CATCH BASED ON FISH BROUGHT ASHORE IN WHOLE FORM, AVAILABLE FOR INTERVIEWER IDENTIFICATION AND ENUMERATION, FROM WHICH SAMPLES OF LENGTHS AND WEIGHTS WERE OBTAINED.

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TABLE 15. ESTIMATED NUMBER OF FISH CAUGHT (CATCH TYPE A) BY MARINE RECREATIONAL FISHERMEN BY AREA OF FISHING AND MODE OF FISHING FOR EACH SUBREGION, JAN 1985--DEC 1985

MODE	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
				THOUSANDS			
NORTH ATLANTIC							
MAN-MADE	377	*	*	*	1,398	*	1,775
BEACH/BANK	124	*	*	*	686	*	811
PARTY/CHARTER	221	1,643	*	*	20	73	1,956
PRIVATE/RENTAL	2,574	1,284	*	*	9,906	*	13,763
TOTALS	3,296	2,927	0	0	12,009	73	18,304
MID ATLANTIC							
MAN-MADE	1,472	*	*	*	2,752	23	4,246
BEACH/BANK	530	*	*	*	3,199	*	3,729
PARTY/CHARTER	971	5,919	*	*	4,319	1	11,211
PRIVATE/RENTAL	7,095	2,973	*	*	31,198	26	41,293
TOTALS	10,068	8,893	0	0	41,467	50	60,478
SOUTH ATLANTIC							
MAN-MADE	8,332	*	*	*	2,805	*	11,136
BEACH/BANK	3,616	*	*	*	961	*	4,577
PARTY/CHARTER	1,317	5,842	*	*	1,322	*	8,481
PRIVATE/RENTAL	3,199	2,472	*	*	8,064	*	13,735
TOTALS	16,464	8,314	0	0	13,152	0	37,930
GULF							
MAN-MADE	1,495	*	*	*	1,637	61	3,193
BEACH/BANK	1,726	*	*	*	2,054	14	3,794
PARTY/CHARTER	2,155	1,997	160	1,714	340	35	6,401
PRIVATE/RENTAL	8,009	638	2,759	4,392	4,327	5	20,130
TOTALS	13,385	2,635	2,919	6,105	8,358	115	33,518

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.
NOTE: "OCEAN 3-10 MI" AND "OCEAN OVER 10 MI" REFER ONLY TO TEXAS AND FLORIDA GULF COASTS WHERE STATE JURIDICTION EXTENDS TO THREE MARINE LEAGUES, APPROXIMATELY TEN NAUTICAL MILES. THE TOTAL OCEAN ESTIMATE IS ADDITIVE ACROSS THE FOUR AREAS.

1. THIS CATEGORY INCLUDES "MISSING DATA" ON AREA, AND LOCAL VARIATION IN MARINE GEOGRAPHIC TERMINOLOGY WHICH SOMETIMES PREVENTED INTERVIEWERS FROM DETERMINING ACCEPTABLE ANSWERS TO QUESTIONS ON "DISTANCE FROM SHORE."

CATCH TYPE A: AN ESTIMATE OF PART OF THE TOTAL CATCH BASED ON FISH BROUGHT ASHORE IN WHOLE FORM, AVAILABLE FOR INTERVIEWER IDENTIFICATION AND ENUMERATION, FROM WHICH SAMPLES OF LENGTHS AND WEIGHTS WERE OBTAINED.

TABLE 16. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND AREA OF FISHING
ALL SUBREGIONS COMBINED, JAN 1985--DEC 1985

SPECIES GROUP	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
			THOUSANDS				
01. SHARKS	885	455	78	38	311	-	1,774
02. SHARKS, DOGFISH	439	997	-	*	1,020	*	2,469
03. SKATES/RAYS	1,486	37	-	-	966	-	2,516
04. EELS	261	324	-	-	304	*	904
05. HERRINGS	13,001	-	*	*	541	*	13,570
06. FRESHWATER CATFISHES	69	-	*	*	391	-	464
07. SALTWATER CATFISHES	11,851	464	403	242	11,035	*	23,996
08. TOADFISHES	284	214	*	-	3,158	*	3,680
09. ATLANTIC COD	926	2,476	*	*	271	*	3,674
10. ATLANTIC TOMCOD	*	*	*	*	150	*	150
11. POLLOCK	267	1,475	*	*	413	*	2,155
12. SILVER HAKE	82	-	*	*	-	*	112
13. SEAROBINS	902	472	*	-	2,985	*	4,361
14. SCULPINS	462	85	*	*	50	*	597
15. WHITE PERCH			*	*	1,176	*	1,177
16. STRIPED BASS	176	*	*	*	520	-	698
17. BLACK SEA BASS	2,061	8,236	1,841	3,685	4,261	*	20,084
18. GROUPERS	436	289	566	1,883	164	*	3,339
19. SEA BASSES	1,091	125	1,062	1,751	347	*	4,376
20. BLUEFISH	8,006	7,287	41	-	12,590	86	28,010
21. JACK CREVALLE	470	80		-	635	*	1,197
22. BLUE RUNNER	1,448	135	183	69	109	*	1,943
23. GREATER AMBERJACK	45	185		138		*	395
24. FLORIDA POMPANO	839	-	*	-	37	*	880
25. JACKS	1,199	138	169	72	225	-	1,808
26. DOLPHINS	429	720	276		*	*	1,432
27. GRAY SNAPPER	1,451	185	613	246	223		2,740
28. RED SNAPPER	93	2,144	-	905	40	32	3,239
29. LANE SNAPPER	68		265		109	*	467
30. VERMILION SNAPPER	402	610	193	219		*	1,428
31. YELLOWTAIL SNAPPER	217	286	371		53	*	938
32. SNAPPERS	91	116	68	-	105	*	394
33. PIGFISH	1,341	*			1,413	*	2,770
34. WHITE GRUNT	777	131	2,572	1,016	*	34	4,530
35. GRUNTS	3,186	659	605	1,376	729	102	6,658
36. SCUP	1,622	588	*	*	13,237	*	15,447
37. PINFISH	6,974	86	461	329	4,037	*	11,887
38. SHEEPSHEAD	1,522	32		70	1,173		2,828
39. RED PORGY	108	130	313	797	*	*	1,349
40. PORGIES	180	273	107	90	67	*	717

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TABLE 16. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND AREA OF FISHING
ALL SUBREGIONS COMBINED, JAN 1985--DEC 1985

SPECIES GROUP	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
			THOUSANDS				
41. SPOTTED SEATROUT	9,686	339	572	51	6,081	*	16,728
42. WEAKFISH	1,359	1,007	*	*	1,120	*	3,486
43. SAND SEATROUT	7,342	623	*	_	1,533	*	9,509
44. SILVER PERCH	1,779	_	*	*	142	*	1,924
45. SPOT	12,201	351	*	*	12,677	_	25,243
46. KINGFISHES	4,341				1,710	*	6,079
47. ATLANTIC CROAKER	8,766	1,986	146	*	12,788	_	23,686
48. BLACK DRUM	494	_	*	*	848	_	1,362
49. RED DRUM	2,169	66		36	3,114	_	5,404
50. DRUMS	2,582	_	116	*	171	*	2,872
51. MULLETS	10,738		67	*	958	*	11,783
52. BARRACUDAS	243	74	65	_	_	*	396
53. TAUTOG	898	1,108	*	*	2,142	*	4,148
54. CUNNER	1,026	730	*	*	1,429	*	3,185
55. LITTLE TUNNY/ATL.BONITO	326	418	44	47		*	844
56. ATLANTIC MACKEREL	3,043	3,812	*	*	1,445	*	8,300
57. KING MACKEREL	387	694	_	78		*	1,183
58. SPANISH MACKEREL	1,034	712		195	194	*	2,163
59. TUNAS/MACKERELS	295	545	169			*	1,013
60. SUMMER FLOUNDER	9,431	2,516	*	*	6,254	_	18,202
61. GULF FLOUNDER	258	*	*	_	229	*	512
62. SOUTHERN FLOUNDER	1,464		*		1,078	_	2,558
63. WINTER FLOUNDER	3,920	45	*	*	27,043	52	31,059
64. FLOUNDERS	1,482	489	_	_	1,911	*	3,891
65. TRIGGERFISHES/FILEFISHES	186	285	48	118			648
66. PUFFERS	469	39	32		449	_	1,009
67. OTHER FISHES	6,184	1,975	435	523	4,265	56	13,437
TOTALS	157,251	47,391	12,064	14,128	150,474	470	381,778

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: "OCEAN 3-10 MI" AND "OCEAN OVER 10 MI" REFER ONLY TO TEXAS AND FLORIDA GULF COASTS WHERE STATE JURIDICTION EXTENDS TO THREE MARINE LEAGUES, APPROXIMATELY TEN NAUTICAL MILES. THE TOTAL OCEAN ESTIMATE IS ADDITIVE ACROSS THE FOUR AREAS.

1. THIS CATEGORY INCLUDES "MISSING DATA" ON AREA, AND LOCAL VARIATION IN MARINE GEOGRAPHIC TERMINOLOGY WHICH SOMETIMES PREVENTED INTERVIEWERS FROM DETERMINING ACCEPTABLE ANSWERS TO QUESTIONS ON "DISTANCE FROM SHORE."

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

TABLE 17. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND AREA OF FISHING NORTH ATLANTIC SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
			THOUSANDS				
01. SHARKS			*	*		*	
02. SHARKS, DOGFISH	39	571	*	*	_	*	639
03. SKATES/RAYS	572		*	*	359	*	933
04. EELS	173	234	*	*	75	*	482
05. HERRINGS	73		*	*	230	*	308
08. TOADFISHES	*	_	*	*	50	*	50
09. ATLANTIC COD	926	2,414	*	*	271	*	3,611
10. ATLANTIC TOMCOD	*	*	*	*	150	*	150
11. POLLOCK	267	1,467	*	*	413	*	2,147
12. SILVER HAKE		*	*	*	*	*	
13. SEAROBINS	161	74	*	*	349	*	584
14. SCULPINS	459	81	*	*	37	*	578
15. WHITE PERCH	*	*	*	*	42	*	42
16. STRIPED BASS	88	*	*	*	304	*	391
17. BLACK SEA BASS	36	44	*	*	72	*	151
19. SEA BASSES	_	_	*	*	*	*	_
20. BLUEFISH	1,623	2,179	*	*	4,049	81	7,933
36. SCUP	1,304	410	*	*	6,709	*	8,424
42. WEAKFISH	*		*	*		*	
53. TAUTOG	280	_	*	*	276	*	566
54. CUNNER	660	596	*	*	425	*	1,680
55. LITTLE TUNNY/ATL.BONITO	*		*	*	*	*	
56. ATLANTIC MACKEREL	2,460	1,079	*	*	1,445	*	4,984
59. TUNAS/MACKERELS	*	_	*	*	*	*	_
60. SUMMER FLOUNDER	95	233	*	*	207	*	535
63. WINTER FLOUNDER	3,310	45	*	*	5,072	*	8,427
64. FLOUNDERS	553	66	*	*	478	*	1,097
66. PUFFERS	*	_	*	*	*	*	_
67. OTHER FISHES	366	509	*	*	948	*	1,823
TOTALS	13,458	10,127	0	0	21,996	81	45,662

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: "OCEAN 3-10 MI" AND "OCEAN OVER 10 MI" REFER ONLY TO TEXAS AND FLORIDA GULF COASTS WHERE STATE JURIDICTION EXTENDS TO THREE MARINE LEAGUES, APPROXIMATELY TEN NAUTICAL MILES. THE TOTAL OCEAN ESTIMATE IS ADDITIVE ACROSS THE FOUR AREAS.

1. THIS CATEGORY INCLUDES "MISSING DATA" ON AREA, AND LOCAL VARIATION IN MARINE GEOGRAPHIC TERMINOLOGY WHICH SOMETIMES PREVENTED INTERVIEWERS FROM DETERMINING ACCEPTABLE ANSWERS TO QUESTIONS ON "DISTANCE FROM SHORE."

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

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TABLE 18. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND AREA OF FISHING
MID-ATLANTIC SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
			THOUSANDS				
01. SHARKS	111	269	*	*	57	*	437
02. SHARKS, DOGFISH	272	426	*	*	971	*	1,669
03. SKATES/RAYS	152	34	*	*	305	*	491
04. EELS	-	57	*	*	157	*	226
05. HERRINGS	188		*	*	157	*	352
06. FRESHWATER CATFISHES		-	*	*	345	*	347
07. SALTWATER CATFISHES	*	*	*	*		*	
08. TOADFISHES	186	188	*	*	2,682	*	3,056
09. ATLANTIC COD	*	62	*	*	*	*	62
11. POLLOCK	*	-	*	*	*	*	
12. SILVER HAKE	74		*	*		*	103
13. SEAROBINS	613	387	*	*	2,562	*	3,562
14. SCULPINS	-	-	*	*		*	
15. WHITE PERCH			*	*	1,004	*	1,006
16. STRIPED BASS	35	*	*	*	183	-	220
17. BLACK SEA BASS	1,278	3,665	*	*	2,991	*	7,934
19. SEA BASSES		71	*	*	283	*	379
20. BLUEFISH	2,710	3,693	*	*	7,239	-	13,647
23. GREATER AMBERJACK	-		*	*	*	*	-
24. FLORIDA POMPANO	-	*	*	*	*	*	-
25. JACKS	-	-	*	*		*	
26. DOLPHINS		-	*	*	*	*	36
33. PIGFISH	48	*	*	*	-	*	62
35. GRUNTS	*	*	*	*	-	*	-
36. SCUP	318	162	*	*	6,528	*	7,008
37. PINFISH	-	-	*	*	*	*	-
38. SHEEPSHEAD	-	*	*	*	*	*	-
40. PORGIES	-	-	*	*	-	*	-
41. SPOTTED SEATROUT			*	*		*	
42. WEAKFISH	1,235	980	*	*	884	*	3,099
44. SILVER PERCH	*	*	*	*		*	
45. SPOT	3,108	344	*	*	8,676	-	12,142

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TABLE 18. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND AREA OF FISHING
MID-ATLANTIC SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
	THOUSANDS						
46. KINGFISHES	46		*	*	35	*	82
47. ATLANTIC CROAKER	1,235	346	*	*	3,972	*	5,553
48. BLACK DRUM			*	*		*	
49. RED DRUM	_	_	*	*	_	*	_
50. DRUMS		*	*	*		*	
51. MULLETS	338	*	*	*	*	*	338
53. TAUTOG	609	1,099	*	*	1,866	*	3,573
54. CUNNER	366	135	*	*	1,004	*	1,505
55. LITTLE TUNNY/ATL.BONITO		171	*	*	*	*	187
56. ATLANTIC MACKEREL	566	2,733	*	*	*	*	3,300
57. KING MACKEREL	*		*	*	*	*	
59. TUNAS/MACKERELS	66	121	*	*		*	187
60. SUMMER FLOUNDER	7,574	2,281	*	*	5,380		15,236
62. SOUTHERN FLOUNDER	*		*	*		*	
63. WINTER FLOUNDER	610	*	*	*	21,971	52	22,632
64. FLOUNDERS	594	422	*	*	1,310	*	2,325
65. TRIGGERFISHES/FILEFISHES			*	*		*	
66. PUFFERS	102	_	*	*	263	*	377
67. OTHER FISHES	491	189	*	*	1,942	*	2,622
TOTALS	23,038	17,942	0	0	72,844	74	113,898

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: "OCEAN 3-10 MI" AND "OCEAN OVER 10 MI" REFER ONLY TO TEXAS AND FLORIDA GULF COASTS WHERE STATE JURIDICTION EXTENDS TO THREE MARINE LEAGUES, APPROXIMATELY TEN NAUTICAL MILES. THE TOTAL OCEAN ESTIMATE IS ADDITIVE ACROSS THE FOUR AREAS.

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TABLE 19. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND AREA OF FISHING SOUTH ATLANTIC SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
			THOUSANDS				
01. SHARKS	218	118	*	*	211	*	548
02. SHARKS, DOGFISH	83	-	*	*		*	100
03. SKATES/RAYS	202		*	*	236	*	437
04. EELS	-	33	*	*	31	*	72
05. HERRINGS	5,016		*	*	150	*	5,183
06. FRESHWATER CATFISHES	*	-	*	*		*	
07. SALTWATER CATFISHES	1,328	69	*	*	2,264	*	3,661
08. TOADFISHES	41	-	*	*	375	*	436
13. SEAROBINS	102		*	*	56	*	168
15. WHITE PERCH	*	-	*	*	130	*	130
16. STRIPED BASS	40	*	*	*		*	53
17. BLACK SEA BASS	505	4,528	*	*	1,183	*	6,215
18. GROUPERS	138	259	*	*	57	*	454
19. SEA BASSES	259	51	*	*	63	*	372
20. BLUEFISH	2,954	1,366	*	*	1,173	*	5,494
21. JACK CREVALLE	355	66	*	*	612	*	1,033
22. BLUE RUNNER	781	126	*	*	101	*	1,008
23. GREATER AMBERJACK	38	118	*	*		*	161
24. FLORIDA POMPANO	813	*	*	*	-	*	836
25. JACKS	319	66	*	*	42	*	427
26. DOLPHINS	93	694	*	*	*	*	787
27. GRAY SNAPPER	677	185	*	*	220	*	1,082
28. RED SNAPPER	41	1,243	*	*		*	1,285
29. LANE SNAPPER	53	-	*	*	109	*	183
30. VERMILION SNAPPER	402	560	*	*		*	966
31. YELLOWTAIL SNAPPER	95	284	*	*	-	*	404
32. SNAPPERS	39	78	*	*	90	*	207
33. PIGFISH	281	*	*	*	1,114	*	1,396
34. WHITE GRUNT	426	131	*	*	*	*	557
35. GRUNTS	912	659	*	*	574	*	2,145
36. SCUP	*		*	*	*	*	
37. PINFISH	1,108	39	*	*	1,364	*	2,511

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TABLE 19. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND AREA OF FISHING SOUTH ATLANTIC SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
			-THOUSANDS-				
38. SHEEPSHEAD	136		•	•	462	•	603
39. RED PORGY	108	130	•	•	•	•	238
40. PORGIES	139	185	•	•	41	•	366
41. SPOTTED SEATROUT	390	_	•	•	1,630	•	2,024
42. WEAKFISH	124		•	•	234	•	359
44. SILVER PERCH	70	_	•	•	108	•	181
45. SPOT	9,053	_	•	•	3,992	•	13,052
46. KINGFISHES	1,614	_	•	•	842	•	2,461
47. ATLANTIC CROAKER	876	1,209	•	•	3,784	•	5,869
48. BLACK DRUM	62	•	•	•	201	•	263
49. RED DRUM	363	_	•	•	923	•	1,292
50. DRUMS	746	_	•	•	64	•	811
51. MULLETS	3,728		•	•	541	•	4,283
52. BARRACUDAS	212	73	•	•	_	•	287
53. TAUTOG		•	•	•		•	
55. LITTLE TUNNY/ATL.BONITO	184	175	•	•	•	•	359
56. ATLANTIC MACKEREL		•	•	•	•	•	
57. KING MACKEREL	339	605	•	•	_	•	947
58. SPANISH MACKEREL	404	293	•	•		•	711
59. TUNAS/MACKERELS	201	394	•	•	•	•	595
60. SUMMER FLOUNDER	1,762		•	•	667	•	2,431
61. GULF FLOUNDER		•	•	•	•	•	
62. SOUTHERN FLOUNDER	149		•	•	438	•	593
64. FLOUNDERS	42	•	•	•	_	•	45
65. TRIGGERFISHES/FILEFISHES	155	122	•	•		•	283
66. PUFFERS	270	•	•	•	179	•	449
67. OTHER FISHES	633	1,123	•	•	886	•	2,642
TOTALS	39,122	15,119	0	0	25,282	0	79,523

NOTE: AN ASTERISK (•) DENOTES NONE REPORTED.

NOTE: "OCEAN 3-10 MI" AND "OCEAN OVER 10 MI" REFER ONLY TO TEXAS AND FLORIDA GULF COASTS WHERE STATE JURIDICTION EXTENDS TO THREE MARINE LEAGUES, APPROXIMATELY TEN NAUTICAL MILES. THE TOTAL OCEAN ESTIMATE IS ADDITIVE ACROSS THE FOUR AREAS.

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

1. THIS CATEGORY INCLUDES "MISSING DATA" ON AREA, AND LOCAL VARIATION IN MARINE GEOGRAPHIC TERMINOLOGY WHICH SOMETIMES PREVENTED INTERVIEWERS FROM DETERMINING ACCEPTABLE ANSWERS TO QUESTIONS ON "DISTANCE FROM SHORE."

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TABLE 20. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND AREA OF FISHING
GULF SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
			THOUSANDS				
01. SHARKS	554	54	78	38	41	-	772
02. SHARKS, DOGFISH	45	-	-	*		*	61
03. SKATES/RAYS	561	-	-	-	66		655
04. EELS	67	-	-	-	41	*	124
05. HERRINGS	7,723	*	*	*		*	7,727
06. FRESHWATER CATFISHES	67		*	*	-		100
07. SALTWATER CATFISHES	10,523	395	403	242	8,771	*	20,334
08. TOADFISHES	57	-	*	-	52	*	138
13. SEAROBINS	-	*	*	-	-	*	46
16. STRIPED BASS	-	*	*	*	-	*	33
17. BLACK SEA BASS	242	*	1,841	3,685		*	5,784
18. GROUPERS	298	-	566	1,883	107	*	2,885
19. SEA BASSES	807	-	1,062	1,751		*	3,621
20. BLUEFISH	718	48	41	-	129	*	937
21. JACK CREVALLE	115	-	-	-	-	*	164
22. BLUE RUNNER	667	-	183	69	-	*	935
23. GREATER AMBERJACK	-	64	-	138	-	*	230
24. FLORIDA POMPANO	-	-	*	-	-	*	43
25. JACKS	877	68	169	72	181	-	1,373
26. DOLPHINS	315	-	276	-	*	*	609
27. GRAY SNAPPER	773	*	613	246	-	-	1,657
28. RED SNAPPER	52	901	-	905	38	32	1,954
29. LANE SNAPPER	-	*	265	-	*	*	284
30. VERMILION SNAPPER	*	49	193	219	-	*	462
31. YELLOWTAIL SNAPPER	122	-	371	-	-	*	535
32. SNAPPERS	53	37	68	-	-	*	187
33. PIGFISH	1,012	*	-	-	284	*	1,312
34. WHITE GRUNT	351	*	2,572	1,016	*	34	3,973
35. GRUNTS	2,275	*	605	1,376	155	102	4,513
37. PINFISH	5,864	46	461	329	2,674	*	9,374
38. SHEEPSHEAD	1,386	-	-	70	711	-	2,224
39. RED PORGY	*	*	313	797	*	*	1,110

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TABLE 20. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND AREA OF FISHING
GULF SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
	THOUSANDS						
40. PORGIES	31	85	107	90		*	334
41. SPOTTED SEATROUT	9,290	335	572	51	4,435	*	14,682
43. SAND SEATROUT	7,342	623	*		1,533	*	9,509
44. SILVER PERCH	1,709	*	*	*		*	1,734
45. SPOT	40	*	*	*		*	49
46. KINGFISHES	2,681				833	*	3,537
47. ATLANTIC CROAKER	6,655	431	146	*	5,032		12,264
48. BLACK DRUM	427		*	*	646		1,089
49. RED DRUM	1,804	60		36	2,190		4,110
50. DRUMS	1,836		116	*	99	*	2,052
51. MULLETS	6,671		67	*	417	*	7,162
52. BARRACUDAS	31		65		*	*	108
55. LITTLE TUNNY/ATL.BONITO	126	62	44	47		*	287
57. KING MACKEREL	48	89		78		*	235
58. SPANISH MACKEREL	630	418		195	180	*	1,452
59. TUNAS/MACKERELS		*	169			*	201
61. GULF FLOUNDER	248	*	*		229	*	502
62. SOUTHERN FLOUNDER	1,315		*		637		1,960
64. FLOUNDERS	292				121	*	424
65. TRIGGERFISHES/FILEFISHES		145	48	118	*		339
66. PUFFERS	97	*	32				157
67. OTHER FISHES	4,694	154	435	523	489	56	6,350
TOTALS	81,633	4,203	12,064	14,128	30,353	315	142,695

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: "OCEAN 3-10 MI" AND "OCEAN OVER 10 MI" REFER ONLY TO TEXAS AND FLORIDA GULF COASTS WHERE STATE JURIDICTION EXTENDS TO THREE MARINE LEAGUES, APPROXIMATELY TEN NAUTICAL MILES. THE TOTAL OCEAN ESTIMATE IS ADDITIVE ACROSS THE FOUR AREAS.

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

1. THIS CATEGORY INCLUDES "MISSING DATA" ON AREA, AND LOCAL VARIATION IN MARINE GEOGRAPHIC TERMINOLOGY WHICH SOMETIMES PREVENTED INTERVIEWERS FROM DETERMINING ACCEPTABLE ANSWERS TO QUESTIONS ON "DISTANCE FROM SHORE."

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TABLE 21. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND MODE OF FISHING
ALL SUBREGIONS COMBINED, JAN 1985--DEC 1985

SPECIES GROUP	MAN-MADE	BEACH/BANK	PARTY/CHARTER	PRIVATE/RENTAL	ALL MODES
			THOUSANDS		
01. SHARKS	138	63	193	1,380	1,774
02. SHARKS, DOGFISH	106	180	855	1,328	2,469
03. SKATES/RAYS	320	106	217	1,873	2,516
04. EELS	72	83	271	479	304
05. HERRINGS	5,552	119	61	7,839	13,570
06. FRESHWATER CATFISHES	104	207		152	464
07. SALTWATER CATFISHES	5,015	3,569	816	14,596	23,996
08. TOADFISHES	379	87	463	2,751	3,680
09. ATLANTIC COD			2,023	1,630	3,674
10. ATLANTIC TOMCOD	112	-	*		150
11. POLLOCK	317	-	1,414	413	2,155
12. SILVER HAKE	-	*	110	*	112
13. SEAROBINS	460	143	734	3,024	4,361
14. SCULPINS	53		34	510	597
15. WHITE PERCH	119	204		851	1,177
16. STRIPED BASS	81	112	-	476	698
17. BLACK SEA BASS	766	235	7,886	11,197	20,084
18. GROUPERS	51		1,059	2,217	3,339
19. SEA BASSES	213	68	259	3,836	4,376
20. BLUEFISH	5,486	3,519	8,253	10,753	28,010
21. JACK CREVALLE	289	227	170	510	1,197
22. BLUE RUNNER	253	106	312	1,271	1,943
23. GREATER AMBERJACK		*	262	133	395
24. FLORIDA POMPANO	425	379	-	47	880
25. JACKS	672	70	133	934	1,808
26. DOLPHINS		*	344	1,086	1,432
27. GRAY SNAPPER	309	96	329	2,005	2,740
28. RED SNAPPER	-	-	2,035	1,187	3,239
29. LANE SNAPPER	*		66	398	467
30. VERMILION SNAPPER		*	939	488	1,428
31. YELLOWTAIL SNAPPER	50		103	773	938
32. SNAPPERS	35	-	171	172	394
33. PIGFISH	1,060	148	761	801	2,770
34. WHITE GRUNT	90	93	780	3,568	4,530
35. GRUNTS	933	554	766	4,405	6,658
36. SCUP	710	1,079	589	13,069	15,447
37. PINFISH	4,101	3,086	112	4,588	11,887
38. SHEEPSHEAD	568	527	59	1,673	2,828
39. RED PORGY	*	*	223	1,126	1,349
40. PORGIES	53	-	100	555	717

TABLE 21. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND MODE OF FISHING
ALL SUBREGIONS COMBINED, JAN 1985--DEC 1985

SPECIES GROUP	MAN-MADE	BEACH/BANK	PARTY/CHARTER	PRIVATE/RENTAL	ALL MODES
			THOUSANDS		
41. SPOTTED SEATROUT	863	1,069	2,405	12,391	16,728
42. WEAKFISH	147	82	477	2,781	3,486
43. SAND SEATROUT	570	285	805	7,850	9,509
44. SILVER PERCH	1,665	134	_	122	1,924
45. SPOT	10,441	1,677	2,409	10,717	25,243
46. KINGFISHES	1,212	2,117	183	2,568	6,079
47. ATLANTIC CROAKER	4,545	2,470	852	15,819	23,686
48. BLACK DRUM	383	249	_	701	1,362
49. RED DRUM	609	908	143	3,744	5,404
50. DRUMS	858	36	70	1,907	2,872
51. MULLETS	3,971	2,132		5,679	11,783
52. BARRACUDAS	127	_	62	199	396
53. TAUTOG	493	397	783	2,476	4,148
54. CUNNER	462	548	456	1,719	3,185
55. LITTLE TUNNY/ATL.BONITO		*	376	441	844
56. ATLANTIC MACKEREL	232	_	5,585	2,478	8,300
57. KING MACKEREL			739	433	1,183
58. SPANISH MACKEREL	333	_	716	1,111	2,163
59. TUNAS/MACKERELS		*	545	445	1,013
60. SUMMER FLOUNDER	442	1,475	2,236	14,050	18,202
61. GULF FLOUNDER	327	77		91	512
62. SOUTHERN FLOUNDER	332	303	34	1,889	2,558
63. WINTER FLOUNDER	1,832	988	743	27,496	31,059
64. FLOUNDERS	193	126	40	3,532	3,891
65. TRIGGERFISHES/FILEFISHES			215	426	648
66. PUFFERS	131	343	106	430	1,009
67. OTHER FISHES	2,012	2,582	1,423	7,420	13,437
TOTALS	61,154	33,185	54,421	233,018	381,778

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

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TABLE 22. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND MODE OF FISHING
NORTH ATLANTIC SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	MAN-MADE	BEACH/BANK	PARTY/CHARTER	PRIVATE/RENTAL	ALL MODES
			THOUSANDS		
01. SHARKS	*				
02. SHARKS, DOGFISH	_	_	539	91	639
03. SKATES/RAYS	_	_		884	933
04. EELS	_	_	234	205	482
05. HERRINGS				285	308
08. TOADFISHES	_	_	_	48	50
09. ATLANTIC COD	*	_	1,961	1,630	3,611
10. ATLANTIC TOMCOD	112	_	*	_	150
11. POLLOCK	317		1,406	413	2,147
12. SILVER HAKE	*	*		*	
13. SEAROBINS	78	_	78	399	584
14. SCULPINS	48	_	_	499	578
15. WHITE PERCH			*	*	42
16. STRIPED BASS	_	39	_	322	391
17. BLACK SEA BASS				125	151
19. SEA BASSES	_	_	_	_	_
20. BLUEFISH	1,537	584	2,119	3,693	7,933
36. SCUP	573		226	7,608	8,424
42. WEAKFISH		_	*		
53. TAUTOG	110	98	82	275	566
54. CUNNER	326	406	446	502	1,680
55. LITTLE TUNNY/ATL.BONITO	*	*		*	
56. ATLANTIC MACKEREL	216	_	3,054	1,709	4,984
59. TUNAS/MACKERELS	*	*	_	_	_
60. SUMMER FLOUNDER				518	535
63. WINTER FLOUNDER	368	633	58	7,367	8,427
64. FLOUNDERS				1,071	1,097
66. PUFFERS	_	_	_	_	_
67. OTHER FISHES	89	596	325	814	1,823
TOTALS	3,901	2,557	10,638	28,565	45,662

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

TABLE 23. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND MODE OF FISHING
MID-ATLANTIC SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	MAN-MADE	BEACH/BANK	PARTY/CHARTER	PRIVATE/RENTAL	ALL MODES
			THOUSANDS		
01. SHARKS			44	376	437
02. SHARKS, DOGFISH	72	120	310	1,167	1,669
03. SKATES/RAYS	-		-	449	491
04. EELS	-	39	-	170	226
05. HERRINGS			58	284	352
06. FRESHWATER CATFISHES	79	177		91	347
07. SALTWATER CATFISHES	*	*	*		
08. TOADFISHES	196	33	418	2,409	3,056
09. ATLANTIC COD	*	*	62	*	62
11. POLLOCK	*	*		*	
12. SILVER HAKE		*	101	*	103
13. SEAROBINS	367	99	505	2,591	3,562
14. SCULPINS		*			
15. WHITE PERCH	101	171	-	728	1,006
16. STRIPED BASS		65		110	220
17. BLACK SEA BASS	406	183	3,770	3,575	7,934
19. SEA BASSES		*		361	379
20. BLUEFISH	2,208	1,721	4,747	4,971	13,647
23. GREATER AMBERJACK	-	*	*		
24. FLORIDA POMPANO	-	*	*	*	-
25. JACKS		*	*		
26. DOLPHINS	*	*		-	36
33. PIGFISH	-	-	-	61	62
35. GRUNTS	*	*	-	*	-
36. SCUP	137	1,062	348	5,461	7,008
37. PINFISH		*		*	
38. SHEEPSHEAD	*	*	*		-
40. PORGIES	-	*	-	-	-
41. SPOTTED SEATROUT					
42. WEAKFISH	82	74	473	2,470	3,099
44. SILVER PERCH	*	*	*		
45. SPOT	1,848	412	2,244	7,638	12,142

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TABLE 23. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND MODE OF FISHING
MID-ATLANTIC SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	MAN-MADE	BEACH/BANK	PARTY/CHARTER	PRIVATE/RENTAL	ALL MODES
			THOUSANDS		
46. KINGFISHES	44				82
47. ATLANTIC CROAKER	282	128	309	4,833	5,553
48. BLACK DRUM	*				
49. RED DRUM	_	*	*	*	_
50. DRUMS			*		
51. MULLETS	_	332	*	*	338
53. TAUTOG	381	298	701	2,193	3,573
54. CUNNER	135	142	_	1,217	1,505
55. LITTLE TUNNY/ATL.BONITO	*	*	81	106	187
56. ATLANTIC MACKEREL	*	*	2,531	768	3,300
57. KING MACKEREL	*	*	*		
59. TUNAS/MACKERELS	_	*	97	90	187
60. SUMMER FLOUNDER	367	143	1,517	13,209	15,236
62. SOUTHERN FLOUNDER	*	*			
63. WINTER FLOUNDER	1,464	355	684	20,129	22,632
64. FLOUNDERS	43	41	_	2,215	2,325
65. TRIGGERFISHES/FILEFISHES	*	*			
66. PUFFERS		48	_	283	377
67. OTHER FISHES	290	1,418	490	424	2,622
TOTALS	8,626	7,092	19,678	78,501	113,898

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

END OF TABLE

TABLE 24. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND MODE OF FISHING
SOUTH ATLANTIC SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	MAN-MADE	BEACH/BANK	PARTY/CHARTER	PRIVATE/RENTAL	ALL MODES
			THOUSANDS		
01. SHARKS	66	42	111	328	548
02. SHARKS, DOGFISH		53			100
03. SKATES/RAYS	223	51	-	156	437
04. EELS	-	-	34	-	72
05. HERRINGS	4,813	77	*	293	5,183
06. FRESHWATER CATFISHES		*	*		
07. SALTWATER CATFISHES	958	586	71	2,046	3,661
08. TOADFISHES	140	32	-	245	436
13. SEAROBINS	-	-	148		168
15. WHITE PERCH	*	-	*	122	130
16. STRIPED BASS	32		*		53
17. BLACK SEA BASS	236	39	3,585	2,356	6,215
18. GROUPERS			186	233	454
19. SEA BASSES	149	58		159	372
20. BLUEFISH	1,562	1,048	1,357	1,527	5,494
21. JACK CREVALLE	206	221	141	464	1,033
22. BLUE RUNNER	167	46	225	571	1,008
23. GREATER AMBERJACK	*	*	72	89	161
24. FLORIDA POMPANO	408	368		36	836
25. JACKS	48	-	-	334	427
26. DOLPHINS	*	*	156	630	787
27. GRAY SNAPPER	167		201	706	1,082
28. RED SNAPPER	-	*	950	334	1,285
29. LANE SNAPPER	*	-	61	119	183
30. VERMILION SNAPPER	*	*	792	174	966
31. YELLOWTAIL SNAPPER		*	44	341	404
32. SNAPPERS	-		82	94	207
33. PIGFISH	169	41	742	444	1,396
34. WHITE GRUNT		*	76	479	557
35. GRUNTS	779	219	554	593	2,145
36. SCUP	*	*			
37. PINFISH	705	461	39	1,306	2,511

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TABLE 24. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND MODE OF FISHING SOUTH ATLANTIC SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	MAN-MADE	BEACH/BANK	PARTY/CHARTER	PRIVATE/RENTAL	ALL MODES
			THOUSANDS		
38. SHEEPSHEAD	130	82		378	603
39. RED PORGY	*	*	92	146	238
40. PORGIES	40	*	53	272	366
41. SPOTTED SEATROUT	226	73	143	1,582	2,024
42. WEAKFISH	62			285	359
44. SILVER PERCH	70	-	-	91	181
45. SPOT	8,579	1,259	165	3,049	13,052
46. KINGFISHES	559	1,003	137	761	2,461
47. ATLANTIC CROAKER	1,861	530	303	3,175	5,869
48. BLACK DRUM	81	41		139	263
49. RED DRUM	155	314	39	784	1,292
50. DRUMS	651	-	-	155	811
51. MULLETS	2,849	1,038		396	4,283
52. BARRACUDAS	127	-	45	108	287
53. TAUTOG	-	*	*		
55. LITTLE TUNNY/ATL.BONITO	-	*	208	145	359
56. ATLANTIC MACKEREL		*	*	*	
57. KING MACKEREL	-	*	616	323	947
58. SPANISH MACKEREL	-	*	225	455	711
59. TUNAS/MACKERELS	-	-	433	162	595
60. SUMMER FLOUNDER	66	1,326	716	323	2,431
61. GULF FLOUNDER	*	*	*	*	
62. SOUTHERN FLOUNDER	81	111		386	593
64. FLOUNDERS	-	-	*	32	45
65. TRIGGERFISHES/FILEFISHES			67	209	283
66. PUFFERS	73	246	81	49	449
67. OTHER FISHES	658	96	327	1,562	2,642
TOTALS	27,300	9,570	13,421	29,233	79,523

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

END OF TABLE

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TABLE 25. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND MODE OF FISHING
GULF SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	MAN-MADE	BEACH/BANK	PARTY/CHARTER	PRIVATE/RENTAL	ALL MODES
			THOUSANDS		
01. SHARKS	61	-	37	662	772
02. SHARKS, DOGFISH			*	52	61
03. SKATES/RAYS	69	40	162	384	655
04. EELS	-	-	-	82	124
05. HERRINGS	724		*	6,976	7,727
06. FRESHWATER CATFISHES		30	*	45	100
07. SALTWATER CATFISHES	4,057	2,983	745	12,550	20,334
08. TOADFISHES	42	-	-	49	138
13. SEAROBINS	-	-	-		46
16. STRIPED BASS		*	*	33	33
17. BLACK SEA BASS	120		518	5,141	5,784
18. GROUPERS	-	*	873	1,984	2,885
19. SEA BASSES	59		240	3,312	3,621
20. BLUEFISH	178	167	30	561	937
21. JACK CREVALLE	83			46	164
22. BLUE RUNNER	87	61	87	701	935
23. GREATER AMBERJACK	*	*	190	41	230
24. FLORIDA POMPANO					43
25. JACKS	619	50	109	595	1,373
26. DOLPHINS	-	*	167	439	609
27. GRAY SNAPPER	142	88	128	1,299	1,657
28. RED SNAPPER			1,085	854	1,954
29. LANE SNAPPER	*	*		279	284
30. VERMILION SNAPPER	-	*	147	314	462
31. YELLOWTAIL SNAPPER	32		59	433	535
32. SNAPPERS		-	89	78	187
33. PIGFISH	891	106		297	1,312
34. WHITE GRUNT	87	93	703	3,089	3,973
35. GRUNTS	154	336	212	3,812	4,513
37. PINFISH	3,394	2,626	73	3,282	9,374
38. SHEEPSHEAD	439	445	45	1,295	2,224
39. RED PORGY	*	*	131	979	1,110

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TABLE 25. ESTIMATED TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND MODE OF FISHING
GULF SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	MAN-MADE	BEACH/BANK	PARTY/CHARTER	PRIVATE/RENTAL	ALL MODES
			THOUSANDS		
40. PORGIES			38	276	334
41. SPOTTED SEATROUT	635	991	2,262	10,795	14,682
43. SAND SEATROUT	570	285	805	7,850	9,509
44. SILVER PERCH	1,595	117	*	_	1,734
45. SPOT			*		49
46. KINGFISHES	609	1,107	40	1,781	3,537
47. ATLANTIC CROAKER	2,402	1,812	239	7,810	12,264
48. BLACK DRUM	302	208	_	556	1,089
49. RED DRUM	452	594	104	2,960	4,110
50. DRUMS	206	32	70	1,744	2,052
51. MULLETS	1,117	762	*	5,283	7,162
52. BARRACUDAS	*	*	_	91	108
55. LITTLE TUNNY/ATL.BONITO		*	76	191	287
57. KING MACKEREL	*	_	124	109	235
58. SPANISH MACKEREL	304	_	492	656	1,452
59. TUNAS/MACKERELS	_	*	_	165	201
61. GULF FLOUNDER	316	77		91	502
62. SOUTHERN FLOUNDER	251	192	_	1,499	1,960
64. FLOUNDERS	130	74	_	213	424
65. TRIGGERFISHES/FILEFISHES	*	*	131	208	339
66. PUFFERS	33	49		70	157
67. OTHER FISHES	976	472	282	4,620	6,350
TOTALS	21,327	13,966	10,684	96,718	142,695

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: AN UNDERSCORE (_) DENOTES LESS THAN THIRTY THOUSAND REPORTED. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

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TABLE 26. ESTIMATED WEIGHT OF FISH CAUGHT (CATCH TYPE A) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION
JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC	MID-ATLANTIC	SOUTH ATLANTIC	GULF	ALL REGIONS
			THOUSAND KILOGRAMS		
01. SHARKS	*	2,165	1,521	1,618	5,305
02. SHARKS, DOGFISH	-	126	-	*	148
03. SKATES/RAYS	22	73	*	-	110
04. EELS				-	95
05. HERRINGS	19	31	-	-	54
06. FRESHWATER CATFISHES	*	138			142
07. SALTWATER CATFISHES	*	*	161	226	387
08. TOADFISHES	-	18	-	-	20
09. ATLANTIC COD	2,128	311	*	*	2,439
10. ATLANTIC TOMCOD	22	*	*	*	22
11. POLLOCK	94		*	*	128
12. SILVER HAKE	-	21	*	*	23
13. SEAROBINS	22	70	*	-	92
14. SCULPINS	-		*	*	
15. WHITE PERCH		82	14	*	104
16. STRIPED BASS	169	149	-	-	332
17. BLACK SEA BASS	9	1,084	1,125	843	3,061
18. GROUPERS	*	*	947	2,881	3,827
19. SEA BASSES			29	17	47
20. BLUEFISH	9,283	10,733	7,108	213	27,337
21. JACK CREVALLE	*	*	230	247	478
22. BLUE RUNNER	*	*	56	42	98
23. GREATER AMBERJACK	*	*	668	925	1,593
24. FLORIDA POMPANO	*	-	81	-	93
25. JACKS	*	-	67	257	325
26. DOLPHINS	*		1,745	262	2,040
27. GRAY SNAPPER	*	*	347	369	716
28. RED SNAPPER	*	*	803	1,865	2,667
29. LANE SNAPPER	*	*	31	47	78
30. VERMILION SNAPPER	*	*	138	54	192
31. YELLOWTAIL SNAPPER	*	*	36	197	232
32. SNAPPERS	*	*	74	68	142
33. PIGFISH	*	5	100	19	124
34. WHITE GRUNT	*	*	43	605	648
35. GRUNTS	*		95	149	245
36. SCUP	1,441	1,537	-	*	2,977
37. PINFISH	*		86	46	132
38. SHEEPSHEAD	*	*	413	1,088	1,501
39. RED PORGY	*	*	107	126	233
40. PORGIES	*	-	89	66	156

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TABLE 26. ESTIMATED WEIGHT OF FISH CAUGHT (CATCH TYPE A) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION
JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC	MID-ATLANTIC	SOUTH ATLANTIC	GULF	ALL REGIONS
			THOUSAND KILOGRAMS		
41. SPOTTED SEATROUT	*		931	3,222	4,178
42. WEAKFISH	_	1,969	157	*	2,218
43. SAND SEATROUT	*	*	*	1,392	1,392
44. SILVER PERCH	*	*	19	20	39
45. SPOT	*	1,248	1,222	4	2,473
46. KINGFISHES	*	17	485	298	800
47. ATLANTIC CROAKER	*	527	441	821	1,788
48. BLACK DRUM	*	_	295	785	1,311
49. RED DRUM	*	*	610	2,217	2,828
50. DRUMS	*		49	196	246
51. MULLETS	*	7	130	196	333
52. BARRACUDAS	*	*	230	240	470
53. TAUTOG	355	1,758		*	2,116
54. CUNNER	11		*	*	15
55. LITTLE TUNNY/ATL.BONITO		208	506	321	1,062
56. ATLANTIC MACKEREL	479	988	*	*	1,467
57. KING MACKEREL	*		4,571	684	5,258
58. SPANISH MACKEREL	*	*	425	528	953
59. TUNAS/MACKERELS		2,328	5,401	115	8,985
60. SUMMER FLOUNDER	202	3,966	597	*	4,765
61. GULF FLOUNDER	*	*		240	245
62. SOUTHERN FLOUNDER	*		210	734	948
63. WINTER FLOUNDER	2,380	5,837	*	*	8,217
64. FLOUNDERS	_	21	_	50	77
65. TRIGGERFISHES/FILEFISHES	*		165	203	379
66. PUFFERS		30	36		70
67. OTHER FISHES	108	282	1,180	1,130	2,701
TOTALS	18,045	36,074	33,876	25,684	113,679

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.
NOTE: SEE TABLES 41 THROUGH 45 FOR STANDARD ERRORS OF THE ESTIMATED NUMBER OF FISH CAUGHT.

NOTE: AN UNDERSCORE (_) MATCHES AN UNDERSCORE IN TABLE 2. HOWEVER, THE WEIGHT HAS BEEN INCLUDED IN ROW AND COLUMN TOTALS.

CATCH TYPE A: AN ESTIMATE OF PART OF THE TOTAL CATCH BASED ON FISH BROUGHT ASHORE IN WHOLE FORM, AVAILABLE FOR INTERVIEWER IDENTIFICATION AND ENUMERATION, FROM WHICH SAMPLES OF LENGTHS AND WEIGHTS WERE OBTAINED.

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TABLE 27. ESTIMATED WEIGHT OF FISH CAUGHT (CATCH TYPE A) BY MARINE RECREATIONAL FISHERMEN BY SUBREGION AND AREA OF FISHING
JAN 1985--DEC 1985

SUBREGION	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
			THOUSAND KILOGRAMS				
NORTH ATLANTIC	2,368	7,945	*	*	7,667	65	18,045
MID ATLANTIC	5,938	11,631	*	*	18,478	26	36,074
SOUTH ATLANTIC	9,743	19,646	*	*	4,487	*	33,876
GULF	8,526	2,990	2,654	6,579	4,842	91	25,684
TOTALS	26,576	42,212	2,654	6,579	35,475	183	113,679

1. THIS CATEGORY INCLUDES "MISSING DATA" ON AREA, AND LOCAL VARIATION IN MARINE GEOGRAPHIC TERMINOLOGY WHICH SOMETIMES PREVENTED INTERVIEWERS FROM DETERMINING ACCEPTABLE ANSWERS TO QUESTIONS ON "DISTANCE FROM SHORE."

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: "OCEAN 3-10 MI" AND "OCEAN OVER 10 MI" REFER ONLY TO TEXAS AND FLORIDA GULF COASTS WHERE STATE JURIDICTION EXTENDS TO THREE MARINE LEAGUES, APPROXIMATELY TEN NAUTICAL MILES. THE TOTAL OCEAN ESTIMATE IS ADDITIVE ACROSS THE FOUR AREAS.

CATCH TYPE A: AN ESTIMATE OF PART OF THE TOTAL CATCH BASED ON FISH BROUGHT ASHORE IN WHOLE FORM, AVAILABLE FOR INTERVIEWER IDENTIFICATION AND ENUMERATION, FROM WHICH SAMPLES OF LENGTHS AND WEIGHTS WERE OBTAINED.

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TABLE 28. ESTIMATED WEIGHT OF FISH CAUGHT (CATCH TYPE A) BY MARINE RECREATIONAL FISHERMEN BY SUBREGION AND MODE OF FISHING
JAN 1985--DEC 1985

SUBREGION	MAN-MADE	BEACH/BANK	PARTY/CHARTER	PRIVATE/RENTAL	ALL MODES
			THOUSAND KILOGRAMS		
NORTH ATLANTIC	441	584	5,223	11,798	18,045
MID ATLANTIC	1,085	1,953	8,356	24,681	36,074
SOUTH ATLANTIC	2,197	2,208	18,983	10,488	33,876
GULF	1,718	1,525	7,477	14,963	25,684
TOTALS	5,441	6,269	40,038	61,930	113,679

CATCH TYPE A: AN ESTIMATE OF PART OF THE TOTAL CATCH BASED ON FISH BROUGHT ASHORE IN WHOLE FORM, AVAILABLE FOR INTERVIEWER IDENTIFICATION AND ENUMERATION, FROM WHICH SAMPLES OF LENGTHS AND WEIGHTS WERE OBTAINED.

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TABLE 29. ESTIMATED WEIGHT OF FISH CAUGHT (CATCH TYPE A) BY MARINE RECREATIONAL FISHERMEN BY AREA OF FISHING AND MODE OF FISHING FOR EACH SUBREGION, JAN 1985--DEC 1985

MODE	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
				THOUSAND KILOGRAMS			
NORTH ATLANTIC							
MAN-MADE	112	*	*	*	329	*	441
BEACH/BANK	194	*	*	*	389	*	584
PARTY/CHARTER	251	4,899	*	*	7	65	5,223
PRIVATE/RENTAL	1,811	3,046	*	*	6,942	*	11,798
TOTALS	2,368	7,945	0	0	7,667	65	18,045
MID ATLANTIC							
MAN-MADE	325	*	*	*	749	11	1,085
BEACH/BANK	461	*	*	*	1,491	*	1,953
PARTY/CHARTER	808	4,616	*	*	2,931	*	8,356
PRIVATE/RENTAL	4,344	7,015	*	*	13,307	15	24,681
TOTALS	5,938	11,631	0	0	18,478	26	36,074
SOUTH ATLANTIC							
MAN-MADE	1,514	*	*	*	683	*	2,197
BEACH/BANK	1,840	*	*	*	368	*	2,208
PARTY/CHARTER	4,333	14,346	*	*	304	*	18,983
PRIVATE/RENTAL	2,056	5,299	*	*	3,132	*	10,488
TOTALS	9,743	19,646	0	0	4,487	0	33,876
GULF							
MAN-MADE	797	*	*	*	890	31	1,718
BEACH/BANK	635	*	*	*	876	14	1,525
PARTY/CHARTER	1,174	2,481	487	2,827	481	26	7,477
PRIVATE/RENTAL	5,920	509	2,167	3,752	2,595	20	14,963
TOTALS	8,526	2,990	2,654	6,579	4,842	91	25,684
GRAND TOTALS	26,576	42,212	2,654	6,579	35,475	183	113,679

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.
NOTE: "OCEAN 3-10 MI" AND "OCEAN OVER 10 MI" REFER ONLY TO TEXAS AND FLORIDA GULF COASTS WHERE STATE JURIDICTION EXTENDS TO THREE MARINE LEAGUES, APPROXIMATELY TEN NAUTICAL MILES. THE TOTAL OCEAN ESTIMATE IS ADDITIVE ACROSS THE FOUR AREAS.

1. THIS CATEGORY INCLUDES "MISSING DATA" ON AREA, AND LOCAL VARIATION IN MARINE GEOGRAPHIC TERMINOLOGY WHICH SOMETIMES PREVENTED INTERVIEWERS FROM DETERMINING ACCEPTABLE ANSWERS TO QUESTIONS ON "DISTANCE FROM SHORE."

TABLE 30. ESTIMATED WEIGHT OF FISH CAUGHT (CATCH TYPE A) BY MARINE RECREATIONAL FISHERMEN BY WAVE AND SUBREGION
JAN 1985--DEC 1985

WAVE	SUBREGION	WEIGHT
		THOUSAND KILOGRAMS
JAN/FEB		
	SOUTH ATLANTIC	2,345
	GULF	4,355
	TOTAL	6,700
MAR/APR		
	NORTH ATLANTIC	1,348
	MID ATLANTIC	8,063
	SOUTH ATLANTIC	9,884
	GULF	2,315
	TOTAL	21,609
MAY/JUN		
	NORTH ATLANTIC	3,818
	MID ATLANTIC	9,339
	SOUTH ATLANTIC	6,325
	GULF	5,096
	TOTAL	24,577
JUL/AUG		
	NORTH ATLANTIC	4,928
	MID ATLANTIC	6,221
	SOUTH ATLANTIC	4,002
	GULF	5,403
	TOTAL	20,554
SEP/OCT		
	NORTH ATLANTIC	7,516
	MID ATLANTIC	10,259
	SOUTH ATLANTIC	8,731
	GULF	4,720
	TOTAL	31,227
NOV/DEC		
	NORTH ATLANTIC	436
	MID ATLANTIC	2,193
	SOUTH ATLANTIC	2,588
	GULF	3,795
	TOTAL	9,012
	GRAND TOTAL	113,679

CATCH TYPE A: AN ESTIMATE OF PART OF THE TOTAL CATCH BASED ON FISH BROUGHT ASHORE IN WHOLE FORM, AVAILABLE FOR INTERVIEWER IDENTIFICATION AND ENUMERATION, FROM WHICH SAMPLES OF LENGTHS AND WEIGHTS WERE OBTAINED.

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TABLE 31. ESTIMATED NUMBER OF PARTICIPANTS IN MARINE RECREATIONAL FISHING
BY STATE AND SUBREGION FOR THE ATLANTIC AND GULF COASTS
JAN 1985--DEC 1985

SUBREGION	STATE	COASTAL PARTICIPANTS	NON-COASTAL PARTICIPANTS	OUT OF STATE (1)	TOTAL PARTICIPANTS IN STATE (1)
		THOUSANDS			
NORTH ATLANTIC					
	CONNECTICUT	284	*	78	362
	STD ERR	203	*	42	208
	MAINE	125	38	115	277
	STD ERR	94	32	88	133
	MASSACHUSETTS	760	110	710	1,580
	STD ERR	620	75	333	707
	NEW HAMPSHIRE	18	1	22	41
	STD ERR	11	1	12	16
	RHODE ISLAND	188	*	362	550
	STD ERR	116	*	149	189
	TOTALS	1,374	149		
	STD ERRS	669	81		
MID ATLANTIC					
	DELAWARE	38	*	91	128
	STD ERR	29	*	56	63
	MARYLAND	366	18	213	597
	STD ERR	248	11	109	271
	NEW JERSEY	625	4	1,170	1,799
	STD ERR	542	5	747	923
	NEW YORK	612	20	72	704
	STD ERR	458	32	75	465
	VIRGINIA	528	71	310	909
	STD ERR	347	48	163	387
	TOTALS	2,168	114		
	STD ERRS	828	58		

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TABLE 31. ESTIMATED NUMBER OF PARTICIPANTS IN MARINE RECREATIONAL FISHING
BY STATE AND SUBREGION FOR THE ATLANTIC AND GULF COASTS
JAN 1985--DEC 1985

SUBREGION	STATE	COASTAL PARTICIPANTS	NON-COASTAL PARTICIPANTS	OUT OF STATE (1)	TOTAL PARTICIPANTS IN STATE (1)
		THOUSANDS			
SOUTH ATLANTIC					
	FLORIDA	1,471	2	990	2,463
	STD ERR	961	2	413	1,046
	GEORGIA	58	48	68	174
	STD ERR	34	22	33	53
	NORTH CAROLINA	170	441	988	1,599
	STD ERR	123	234	463	533
	SOUTH CAROLINA	172	60	227	459
	STD ERR	110	38	105	157
	TOTALS	1,872	551		
	STD ERRS	975	239		
GULF					
	ALABAMA	73	57	68	198
	STD ERR	46	29	34	64
	FLORIDA	1,508	9	1,986	3,503
	STD ERR	1,092	*	795	1,351
	LOUISIANA	535	28	63	625
	STD ERR	297	8	51	302
	MISSISSIPPI	69	12	82	164
	STD ERR	45	9	33	56
	TEXAS	1,207	462	102	1,771
	STD ERR	603	198	54	637
	TOTALS	3,391	568		
	STD ERRS	1,284	200		
	GRAND TOTALS	8,806	1,381		
	STD ERRS	1,932	327		

NOTE: AN ASTERISK (*) DENOTES NO PARTICIPANTS FROM THIS AREA.

1. NOT ADDITIVE ACROSS STATES. ONE PERSON CAN BE COUNTED AS "OUT OF STATE" FOR MORE THAN ONE STATE.

END OF TABLE

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TABLE 32. ESTIMATED NUMBER OF FISHING TRIPS BY MARINE RECREATIONAL FISHERMEN BY STATE AND SUBREGION, JAN 1985--DEC 1985

SUBREGION	STATE	TRIPS BY COASTAL RESIDENTS	TRIPS BY NON-COASTAL RESIDENTS	TRIPS BY OUT OF STATE RESIDENTS	ALL TRIPS
		THOUSANDS			
NORTH ATLANTIC					
	CONNECTICUT	1,311	*	209	1,519
	STD ERR	134	*	76	154
	MAINE	484	78	196	758
	STD ERR	108	71	151	199
	MASSACHUSETTS	3,302	294	1,175	4,771
	STD ERR	394	172	396	584
	NEW HAMPSHIRE	47	3	38	88
	STD ERR	9	4	17	20
	RHODE ISLAND	696	*	869	1,565
	STD ERR	112	*	208	236
	TOTALS	5,839	376	2,486	8,701
	STD ERRS	445	186	478	679
MID ATLANTIC					
	DELAWARE	310	*	264	574
	STD ERR	49	*	77	91
	MARYLAND	1,305	50	438	1,793
	STD ERR	198	54	195	283
	NEW JERSEY	4,068	31	3,310	7,409
	STD ERR	455	54	781	905
	NEW YORK	4,886	60	182	5,128
	STD ERR	845	153	237	891
	VIRGINIA	2,136	166	610	2,912
	STD ERR	357	135	326	502
	TOTALS	12,704	307	4,805	17,816
	STD ERRS	1,044	218	903	1,397

CONTINUED

TABLE 32. ESTIMATED NUMBER OF FISHING TRIPS BY MARINE RECREATIONAL FISHERMEN BY STATE AND SUBREGION, JAN 1985--DEC 1985

SUBREGION	STATE	TRIPS BY COASTAL RESIDENTS	TRIPS BY NON-COASTAL RESIDENTS	TRIPS BY OUT OF STATE RESIDENTS	ALL TRIPS
		THOUSANDS			
SOUTH ATLANTIC					
	FLORIDA	10,225	16	2,252	12,493
	STD ERR	780	47	617	996
	GEORGIA	349	119	112	580
	STD ERR	52	43	52	85
	NORTH CAROLINA	1,452	1,380	2,362	5,194
	STD ERR	135	326	784	860
	SOUTH CAROLINA	892	183	498	1,573
	STD ERR	139	102	241	297
	TOTALS	12,918	1,698	5,223	19,840
	STD ERRS	806	348	1,027	1,351
GULF					
	ALABAMA	365	107	131	603
	STD ERR	62	44	50	91
	FLORIDA	8,843	44	4,484	13,372
	STD ERR	883	111	981	1,325
	LOUISIANA	2,264	73	109	2,446
	STD ERR	458	102	157	495
	MISSISSIPPI	370	27	139	536
	STD ERR	46	19	46	67
	TEXAS	5,884	1,164	222	7,270
	STD ERR	541	410	134	692
	TOTALS	17,726	1,417	5,084	24,227
	STD ERRS	1,135	440	1,005	1,578
	GRAND TOTALS	49,188	3,797	17,598	70,584
	STD ERRS	1,796	629	1,763	2,594

NOTE: AN ASTERISK (*) DENOTES NO ESTIMATED TRIPS FROM THIS AREA.

END OF TABLE

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TABLE 33. ESTIMATED NUMBER OF FISHING TRIPS BY MARINE RECREATIONAL FISHERMEN BY MODE AND SUBREGION, JAN 1985--DEC 1985

SUBREGION	MODE	TRIPS BY COASTAL RESIDENTS	TRIPS BY NON-COASTAL RESIDENTS	TRIPS BY OUT OF STATE RESIDENTS	ALL TRIPS
		THOUSANDS			
NORTH ATLANTIC	MAN-MADE	1,286	47	260	1,593
	STD ERR	227	66	128	268
	BEACH/BANK	1,085	39	290	1,414
	STD ERR	146	40	128	199
	PARTY/CHARTER	604	164	767	1,534
	STD ERR	142	115	274	329
	PRIVATE/RENTAL	2,865	126	1,170	4,160
	STD ERR	324	124	348	491
	TOTALS	5,839	376	2,486	8,701
	STD ERRS	445	186	478	679
MID ATLANTIC	MAN-MADE	2,354	66	473	2,893
	STD ERR	392	89	219	458
	BEACH/BANK	1,873	19	404	2,297
	STD ERR	340	40	186	390
	PARTY/CHARTER	1,680	53	1,671	3,404
	STD ERR	185	53	472	510
	PRIVATE/RENTAL	6,797	168	2,257	9,222
	STD ERR	887	187	714	1,154
	TOTALS	12,704	307	4,805	17,816
	STD ERRS	1,044	218	903	1,397
SOUTH ATLANTIC	MAN-MADE	3,331	387	1,244	4,963
	STD ERR	420	150	379	585
	BEACH/BANK	2,927	397	1,392	4,716
	STD ERR	384	160	451	613
	PARTY/CHARTER	1,171	484	1,851	3,506
	STD ERR	307	240	800	890
	PRIVATE/RENTAL	5,489	431	735	6,655
	STD ERR	481	123	261	561
	TOTALS	12,918	1,698	5,223	19,840
	STD ERRS	806	348	1,027	1,351
GULF	MAN-MADE	4,460	436	1,607	6,502
	STD ERR	423	203	462	659
	BEACH/BANK	3,341	219	732	4,293
	STD ERR	597	130	425	745
	PARTY/CHARTER	936	175	580	1,691
	STD ERR	143	93	189	254
	PRIVATE/RENTAL	8,989	588	2,164	11,741
	STD ERR	856	355	762	1,199
	TOTALS	17,726	1,417	5,084	24,227
	STD ERRS	1,135	440	1,005	1,578
	GRAND TOTALS	49,188	3,797	17,598	70,584
	STD ERRS	1,796	629	1,763	2,594

TABLE 34. TABULATION OF PRIMARY SPECIES GROUP SOUGHT AS REPORTED BY FISHERMEN IN THE INTERCEPT SURVEY BY REGION.
JAN 1985--DEC 1985

SUBREGION NORTH ATLANTIC

SOUGHT		COUNT	PERCENT
	NONE	884	22.22
20.	BLUEFISH	818	20.56
63.	WINTER FLOUNDER	689	17.32
09.	ATLANTIC COD	440	11.06
67.	OTHER FISHES	203	5.10
56.	ATLANTIC MACKEREL	197	4.95
53.	TAUTOG	141	3.54
64.	FLOUNDERS	123	3.09
16.	STRIPED BASS	105	2.64
60.	SUMMER FLOUNDER	100	2.51
36.	SCUP	87	2.19
59.	TUNAS/MACKERELS	63	1.58
11.	POLLOCK	30	0.75
10.	ATLANTIC TOMCOD	12	0.30
14.	SCULPINS	4	0.10

SUBREGION MID ATLANTIC

SOUGHT		COUNT	PERCENT
	NONE	4742	28.01
20.	BLUEFISH	3918	23.14
60.	SUMMER FLOUNDER	1776	10.49
42.	WEAKFISH	1132	6.69
45.	SPOT	812	4.80
63.	WINTER FLOUNDER	796	4.70
15.	WHITE PERCH	383	2.26
67.	OTHER FISHES	341	2.01
64.	FLOUNDERS	296	1.75
53.	TAUTOG	222	1.31
17.	BLACK SEA BASS	151	0.89
16.	STRIPED BASS	146	0.86
59.	TUNAS/MACKERELS	128	0.76
47.	ATLANTIC CROAKER	121	0.71
36.	SCUP	115	0.68

SUBREGION SOUTH ATLANTIC

SOUGHT		COUNT	PERCENT
	NONE	6264	56.50
41.	SPOTTED SEATROUT	773	6.97
20.	BLUEFISH	503	4.54
49.	RED DRUM	413	3.73
67.	OTHER FISHES	330	2.98
57.	KING MACKEREL	315	2.84
46.	KINGFISHES	278	2.51
45.	SPOT	266	2.40
60.	SUMMER FLOUNDER	247	2.23
32.	SNAPPERS	236	2.13
26.	DOLPHINS	193	1.74
38.	SHEEPSHEAD	138	1.24
01.	SHARKS	125	1.13
58.	SPANISH MACKEREL	104	0.94
19.	SEA BASSES	77	0.69

SUBREGION GULF

SOUGHT		COUNT	PERCENT
	NONE	6351	58.42
41.	SPOTTED SEATROUT	991	9.12
49.	RED DRUM	937	8.62
67.	OTHER FISHES	277	2.55
18.	GROUPERS	272	2.50
19.	SEA BASSES	217	2.00
28.	RED SNAPPER	166	1.53
46.	KINGFISHES	161	1.48
58.	SPANISH MACKEREL	158	1.45
43.	SAND SEATROUT	128	1.18
38.	SHEEPSHEAD	115	1.06
48.	BLACK DRUM	104	0.96
50.	DRUMS	96	0.88
51.	MULLETS	91	0.84
57.	KING MACKEREL	85	0.78

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TABLE 35. FREQUENCY DISTRIBUTION OF NUMBER OF FISH CAUGHT PER TRIP
BY SUBREGION FOR EACH MODE OF FISHING, JAN 1985--DEC 1985

MODE OF FISHING (FISHERMAN COLLAPSED)=MAN-MADE

FREQUENCY ROW PCT	0	.01-1	1.01-2	2.01-3	3.01-5	5.01-10	10.01-15	15.01-20	20.01-25	OVER 25	TOTAL
NORTH ATLANTIC	576 59.20	122 12.54	62 6.37	45 4.62	55 5.65	47 4.83	33 3.39	11 1.13	10 1.03	12 1.23	973
MID ATLANTIC	1732 46.56	405 10.89	328 8.82	229 6.16	262 7.04	376 10.11	167 4.49	78 2.10	52 1.40	91 2.45	3720
SOUTH ATLANTIC	1437 46.47	412 13.32	267 8.64	171 5.53	198 6.40	267 8.64	107 3.46	62 2.01	38 1.23	133 4.30	3092
GULF	1598 45.48	476 13.55	343 9.76	217 6.18	308 8.76	300 8.54	127 3.61	53 1.51	26 0.74	66 1.88	3514
TOTAL	5343	1415	1000	662	823	990	434	204	126	302	11299

MODE OF FISHING (FISHERMAN COLLAPSED)=BEACH/BANK

FREQUENCY ROW PCT	0	.01-1	1.01-2	2.01-3	3.01-5	5.01-10	10.01-15	15.01-20	20.01-25	OVER 25	TOTAL
NORTH ATLANTIC	499 66.18	80 10.61	56 7.43	24 3.18	49 6.50	20 2.65	7 0.93	2 0.27	1 0.13	16 2.12	754
MID ATLANTIC	1184 51.48	273 11.87	191 8.30	149 6.48	167 7.26	183 7.96	68 2.96	24 1.04	13 0.57	48 2.09	2300
SOUTH ATLANTIC	1339 54.59	347 14.15	223 9.09	130 5.30	153 6.24	142 5.79	49 2.00	16 0.65	14 0.57	40 1.63	2453
GULF	980 47.55	240 11.64	187 9.07	108 5.24	167 8.10	204 9.90	95 4.61	23 1.12	26 1.26	31 1.50	2061
TOTAL	4002	940	657	411	536	549	219	65	54	135	7568

TABLE 35. FREQUENCY DISTRIBUTION OF NUMBER OF FISH CAUGHT PER TRIP
BY SUBREGION FOR EACH MODE OF FISHING, JAN 1985--DEC 1985

MODE OF FISHING (FISHERMAN COLLAPSED)=PARTY/CHARTER

FREQUENCY ROW PCT	0	.01-1	1.01-2	2.01-3	3.01-5	5.01-10	10.01-15	15.01-20	20.01-25	OVER 25	TOTAL
NORTH ATLANTIC	231 22.83	137 13.54	79 7.81	75 7.41	119 11.76	160 15.81	86 8.50	49 4.84	17 1.68	59 5.83	1012
MID ATLANTIC	486 11.52	339 8.04	337 7.99	282 6.68	480 11.38	929 22.02	622 14.74	273 6.47	185 4.38	286 6.78	4219
SOUTH ATLANTIC	407 26.94	252 16.68	204 13.50	123 8.14	178 11.78	192 12.71	78 5.16	35 2.32	18 1.19	24 1.59	1511
GULF	406 22.31	239 13.13	173 9.51	138 7.58	210 11.54	342 18.79	125 6.87	93 5.11	35 1.92	59 3.24	1820
TOTAL	1530	967	793	618	987	1623	911	450	255	428	8562

MODE OF FISHING (FISHERMAN COLLAPSED)=PRIVATE/RENTAL

FREQUENCY ROW PCT	0	.01-1	1.01-2	2.01-3	3.01-5	5.01-10	10.01-15	15.01-20	20.01-25	OVER 25	TOTAL
NORTH ATLANTIC	439 35.43	88 7.10	78 6.30	89 7.18	107 8.64	170 13.72	103 8.31	52 4.20	26 2.10	87 7.02	1239
MID ATLANTIC	1589 23.75	581 8.68	642 9.60	528 7.89	735 10.99	1027 15.35	524 7.83	319 4.77	208 3.11	537 8.03	6690
SOUTH ATLANTIC	1357 33.67	423 10.50	353 8.76	278 6.90	501 12.43	537 13.33	265 6.58	105 2.61	79 1.96	132 3.28	4030
GULF	918 26.41	314 9.03	271 7.80	238 6.85	363 10.44	520 14.96	388 11.16	159 4.57	102 2.93	203 5.84	3476
TOTAL	4303	1406	1344	1133	1706	2254	1280	635	415	959	15435

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TABLE 36. AVERAGE NUMBER OF FISH CAUGHT PER TRIP BY SUBREGION FOR EACH MODE OF FISHING, JAN 1985--DEC 1985

SUBREGION	MEAN CATCH
NORTH ATLANTIC	
MAN-MADE	2.3
BEACH/BANK	2.3
PARTY/CHARTER	7.2
PRIVATE/RENTAL	8.4
MID ATLANTIC	
MAN-MADE	4.0
BEACH/BANK	3.0
PARTY/CHARTER	9.4
PRIVATE/RENTAL	8.3
SOUTH ATLANTIC	
MAN-MADE	5.2
BEACH/BANK	2.5
PARTY/CHARTER	3.9
PRIVATE/RENTAL	5.6
GULF	
MAN-MADE	3.2
BEACH/BANK	3.6
PARTY/CHARTER	5.9
PRIVATE/RENTAL	8.7

TABLE 37. NUMBER OF INTERCEPT SURVEY INTERVIEWS CONDUCTED FROM JAN 1985--DEC 1985 BY AREA OF FISHING AND MODE OF FISHING FOR EACH SUBREGION

MODE	OCEAN 3 MI OR LESS	OCEAN MORE THAN 3 MI	OCEAN 3-10 MI	OCEAN OVER 10 MI	INLAND	UNDEFINED (1)	ALL AREAS
NORTH ATLANTIC							
MAN-MADE	450	*	*	*	523	*	973
BEACH/BANK	308	*	*	*	438	*	746
PARTY/CHARTER	277	625	*	*	87	2	991
PRIVATE/RENTAL	484	128	*	*	590	*	1,202
TOTALS	1,519	753	0	0	1,638	2	3,912
MID ATLANTIC							
MAN-MADE	1,173	*	*	*	2,482	3	3,658
BEACH/BANK	467	*	*	*	1,768	6	2,241
PARTY/CHARTER	230	1,296	*	*	2,190	1	3,717
PRIVATE/RENTAL	723	798	*	*	4,474	34	6,029
TOTALS	2,593	2,094	0	0	10,914	44	15,645
SOUTH ATLANTIC							
MAN-MADE	1,240	*	*	*	1,839	1	3,080
BEACH/BANK	1,243	*	*	*	1,198	1	2,442
PARTY/CHARTER	421	751	*	*	317	*	1,489
PRIVATE/RENTAL	690	684	*	*	2,624	*	3,998
TOTALS	3,594	1,435	0	0	5,978	2	11,009
GULF							
MAN-MADE	2,172	*	*	*	1,282	34	3,488
BEACH/BANK	1,032	*	*	*	984	33	2,049
PARTY/CHARTER	352	359	127	748	143	9	1,738
PRIVATE/RENTAL	1,640	199	157	153	1,246	13	3,408
TOTALS	5,196	558	284	901	3,655	89	10,683
GRAND TOTALS	12,902	4,840	284	901	22,185	137	41,249

NOTE: AN ASTERISK (*) DENOTES NO INTERVIEWS CONDUCTED.

1. THIS CATEGORY INCLUDES "MISSING DATA" ON AREA, AND LOCAL VARIATION IN MARINE GEOGRAPHIC TERMINOLOGY WHICH SOMETIMES PREVENTED INTERVIEWERS FROM DETERMINING ACCEPTABLE ANSWERS TO QUESTIONS ON "DISTANCE FROM SHORE."

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TABLE 38. TABULATION OF LOCATION OF RESIDENCE OF FISHERMEN
INTERCEPTED BY STATE OF INTERCEPT SURVEY INTERVIEW
JAN 1985--DEC 1985

STATE	COASTAL AREA	REST OF STATE	OUT OF STATE	TOTALS
	PERCENT			
ALABAMA	61.4	15.3	23.3	974
CONNECTICUT	86.7	0.0	13.3	1033
DELAWARE	51.5	0.0	48.5	1007
FLORIDA	77.0	0.7	22.3	8885
GEORGIA	69.9	16.5	13.6	3021
LOUISIANA	93.0	3.2	3.8	2129
MAINE	70.2	4.1	25.6	675
MARYLAND	69.5	3.1	27.3	6278
MASSACHUSETTS	72.1	6.8	21.1	1387
MISSISSIPPI	66.4	6.4	27.3	598
NEW HAMPSHIRE	51.0	7.0	42.0	243
NEW JERSEY	64.0	0.6	35.4	1695
NEW YORK	94.1	1.3	4.6	2284
NORTH CAROLINA	36.1	26.4	37.5	1964
RHODE ISLAND	42.9	0.0	57.1	574
SOUTH CAROLINA	60.3	10.6	29.1	1290
TEXAS	79.7	16.2	4.1	2831
VIRGINIA	72.6	7.7	19.7	4381
TOTALS	29711	2643	8895	41249

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TABLE 39. TABULATION OF STATE OF RESIDENCE OF INTERCEPTED FISHERMEN
BY STATE OF INTERCEPTED INTERVIEW, JAN 1985--DEC 1985

STATE OF INTERCEPTED INTERVIEW

STATE RESIDENCE	AL	CT	DE	FL	GA	LA	ME	MD	MA	MS	NH	NJ	NY	NC	RI	SC	TX	VA	TOTAL
ALABAMA	747	2		138	9	4		5	2	15		1	1	3		2	1	6	936
ROW PERCENT	79.8	0.2		14.7	1.0	0.4		0.5	0.2	1.6		0.1	0.1	0.3		0.2	0.1	0.6	
COL PERCENT	76.7	0.2		1.6	0.3	0.2		0.1	0.1	2.5		0.1	0.0	0.2		0.2	0.0	0.1	
ALASKA				2		2		1						1				2	8
ROW PERCENT				25.0		25.0		12.5						12.5				25.0	
COL PERCENT				0.0		0.1		0.0						0.1				0.0	
ARIZONA				10			3	5										1	19
ROW PERCENT				52.6			15.8	26.3										5.3	
COL PERCENT				0.1			0.4	0.1										0.0	
ARKANSAS				7	3	5				2				1			5	2	25
ROW PERCENT				28.0	12.0	20.0				8.0				4.0			20.0	8.0	
COL PERCENT				0.1	0.1	0.2				0.3				0.1			0.2	0.0	
CALIFORNIA	1	1		18	7	3	1	10	1		2	1	6			2	6	11	70
ROW PERCENT	1.4	1.4		25.7	10.0	4.3	1.4	14.3	1.4		2.9	1.4	8.6			2.9	8.6	15.7	
COL PERCENT	0.1	0.1		0.2	0.2	0.1	0.1	0.2	0.1		0.8	0.1	0.3			0.2	0.2	0.3	
COLORADO		1	1	14	3	2	1					1		1			6	1	31
ROW PERCENT		3.2	3.2	45.2	9.7	6.5	3.2					3.2		3.2			19.4	3.2	
COL PERCENT		0.1	0.1	0.2	0.1	0.1	0.1					0.1		0.1			0.2	0.0	
CONNECTICUT		896	1	28	2		20		47		5	3	10	3	136	2		4	1157
ROW PERCENT		77.4	0.1	2.4	0.2		1.7		4.1		0.4	0.3	0.9	0.3	11.8	0.2		0.3	
COL PERCENT		86.7	0.1	0.3	0.1		3.0		3.4		2.1	0.2	0.4	0.2	23.7	0.2		0.1	
DELAWARE			519	7	3			45				10		3			2	32	621
ROW PERCENT			83.6	1.1	0.5			7.2				1.6		0.5			0.3	5.2	
COL PERCENT			51.5	0.1	0.1			0.7				0.6		0.2			0.1	0.7	
DISTRICT OF COLUMBIA			1	3	1			249				4		3		1		24	286
ROW PERCENT			0.3	1.0	0.3			87.1				1.4		1.0		0.3		8.4	
COL PERCENT			0.1	0.0	0.0			4.0				0.2		0.2		0.1		0.5	
FLORIDA	57	2	3	6903	89	4	4	23	1	4	3	14	2	8		9	3	27	7156
ROW PERCENT	0.8	0.0	0.0	96.5	1.2	0.1	0.1	0.3	0.0	0.1	0.0	0.2	0.0	0.1		0.1	0.0	0.4	
COL PERCENT	5.9	0.2	0.3	77.7	2.9	0.2	0.6	0.4	0.1	0.7	1.2	0.8	0.1	0.4		0.7	0.1	0.6	
GEORGIA	23			405	2610	5		10		5				8		90		14	3170
ROW PERCENT	0.7			12.8	82.3	0.2		0.3		0.2				0.3		2.8		0.4	
COL PERCENT	2.4			4.6	96.4	0.2		0.2		0.8				0.4		7.0		0.3	
HAWAII				1				2				1				1		2	7
ROW PERCENT				14.3				28.6				14.3				14.3		28.6	
COL PERCENT				0.0				0.0				0.1				0.1		0.0	

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TABLE 39. TABULATION OF STATE OF RESIDENCE OF INTERCEPTED FISHERMEN
BY STATE OF INTERCEPTED INTERVIEW, JAN 1985--DEC 1985

STATE OF INTERCEPTED INTERVIEW

STATE RESIDENCE	AL	CT	DE	FL	GA	LA	ME	MD	MA	MS	NH	NJ	NY	NC	RI	SC	TX	VA	TOTAL
IDAHO					1						1							1	3
ROW PERCENT					33.3						33.3							33.3	
COL PERCENT					0.0						0.4							0.0	
ILLINOIS	17			98	13	1		10	6	4				1		3	1	8	162
ROW PERCENT	10.5			60.5	8.0	0.6		6.2	3.7	2.5				0.6		1.9	0.6	4.9	
COL PERCENT	1.7			1.1	0.4	0.0		0.2	0.4	0.7				0.1		0.2	0.0	0.2	
INDIANA	10			92	5			5		1				3		1	2	8	127
ROW PERCENT	7.9			72.4	3.9			3.9		0.8				2.4		0.8	1.6	6.3	
COL PERCENT	1.0			1.0	0.2			0.1		0.2				0.2		0.1	0.1	0.2	
IOWA				8	1			1						1			2	3	16
ROW PERCENT				50.0	6.3			6.3						6.3			12.5	18.8	
COL PERCENT				0.1	0.0			0.0						0.1			0.1	0.1	
KANSAS				3				2						1			6		12
ROW PERCENT				25.0				16.7						8.3			50.0		
COL PERCENT				0.0				0.0						0.1			0.2		
KENTUCKY	9			84	10			7		2		1	1	2		1	2	7	126
ROW PERCENT	7.1			66.7	7.9			5.6		1.6		0.8	0.8	1.6		0.8	1.6	5.6	
COL PERCENT	0.9			0.9	0.3			0.1		0.3		0.1	0.0	0.1		0.1	0.1	0.2	
LOUISIANA	16	1		16	18	2049			1	77			1	2			10	5	2196
ROW PERCENT	0.7	0.0		0.7	0.8	93.3			0.0	3.5			0.0	0.1			0.5	0.2	
COL PERCENT	1.6	0.1		0.2	0.6	96.2			0.1	12.9			0.0	0.1			0.4	0.1	
MAINE	1		2	4		1	502	2	4		6	1							523
ROW PERCENT	0.2		0.4	0.8		0.2	96.0	0.4	0.8		1.1	0.2							
COL PERCENT	0.1		0.2	0.0		0.0	74.4	0.0	0.3		2.5	0.1							
MARYLAND	1	1	129	20	3			4561	5		2	4	1	39		12		267	5045
ROW PERCENT	0.0	0.0	2.6	0.4	0.1			90.4	0.1		0.0	0.1	0.0	0.8		0.2		5.3	
COL PERCENT	0.1	0.1	12.8	0.2	0.1			72.7	0.4		0.8	0.2	0.0	2.0		0.9		6.1	
MASSACHUSETTS		25		29	4		48	7	1095		57	2	1	1	88			6	1363
ROW PERCENT		1.8		2.1	0.3		3.5	0.5	80.3		4.2	0.1	0.1	0.1	6.5			0.4	
COL PERCENT		2.4		0.3	0.1		7.1	0.1	78.9		23.5	0.1	0.0	0.1	15.3			0.1	
MICHIGAN	7			123	11	2	1	10	1	1	1	1	1	4		10	2	10	185
ROW PERCENT	3.8			66.5	5.9	1.1	0.5	5.4	0.5	0.5	0.5	0.5	0.5	2.2		5.4	1.1	5.4	
COL PERCENT	0.7			1.4	0.4	0.1	0.1	0.2	0.1	0.2	0.4	0.1	0.0	0.2		0.8	0.1	0.2	
MINNESOTA				19	2	1							1			1	1	5	30
ROW PERCENT				63.3	6.7	3.3							3.3			3.3	3.3	16.7	
COL PERCENT				0.2	0.1	0.0							0.0			0.1	0.0	0.1	

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TABLE 39. TABULATION OF STATE OF RESIDENCE OF INTERCEPTED FISHERMEN
BY STATE OF INTERCEPTED INTERVIEW, JAN 1985--DEC 1985

STATE OF INTERCEPTED INTERVIEW

STATE RESIDENCE	AL	CT	DE	FL	GA	LA	ME	MD	MA	MS	NH	NJ	NY	NC	RI	SC	TX	VA	TOTAL
MISSISSIPPI	43			6	8	13		2	1	435			1					2	511
ROW PERCENT	8.4			1.2	1.6	2.5		0.4	0.2	85.1			0.2					0.4	
COL PERCENT	4.4			0.1	0.3	0.6		0.0	0.1	72.7			0.0					0.0	
MISSOURI	6	1		29	7		1	2	1			3	1	5		2	14	4	76
ROW PERCENT	7.9	1.3		38.2	9.2		1.3	2.6	1.3			3.9	1.3	6.6		2.6	18.4	5.3	
COL PERCENT	0.6	0.1		0.3	0.2		0.1	0.0	0.1			0.2	0.0	0.3		0.2	0.5	0.1	
MONTANA				1											1		1		3
ROW PERCENT				33.3											33.3		33.3		
COL PERCENT				0.0											0.2		0.0		
NEBRASKA				4	2			3		4		3				3	1	3	23
ROW PERCENT				17.4	8.7			13.0		17.4		13.0				13.0	4.3	13.0	
COL PERCENT				0.0	0.1			0.0		0.7		0.2				0.2	0.0	0.1	
NEVADA								1		1		1							3
ROW PERCENT								33.3		33.3		33.3							
COL PERCENT								0.0		0.2		0.1							
NEW HAMPSHIRE	1	4		9	1		45	3	40		141	1		1					246
ROW PERCENT	0.4	1.6		3.7	0.4		18.3	1.2	16.3		57.3	0.4		0.4					
COL PERCENT	0.1	0.4		0.1	0.0		6.7	0.0	2.9		58.0	0.1		0.1					
NEW JERSEY		6	9	69	7		2	32	33		2	1095	65	25	7	5		22	1379
ROW PERCENT		0.4	0.7	5.0	0.5		0.1	2.3	2.4		0.1	79.4	4.7	1.8	0.5	0.4		1.6	
COL PERCENT		0.6	0.9	0.8	0.2		0.3	0.5	2.4		0.8	64.6	2.8	1.3	1.2	0.4		0.5	
NEW MEXICO				1	2			1									2	1	7
ROW PERCENT				14.3	28.6			14.3									28.6	14.3	
COL PERCENT				0.0	0.1			0.0									0.1	0.0	
NEW YORK	2	80	2	128	31	1	11	29	80		12	52	2179	6	56	6		43	2718
ROW PERCENT	0.1	2.9	0.1	4.7	1.1	0.0	0.4	1.1	2.9		0.4	1.9	80.2	0.2	2.1	0.2		1.6	
COL PERCENT	0.2	7.7	0.2	1.4	1.0	0.0	1.6	0.5	5.8		4.9	3.1	95.4	0.3	9.8	0.5		1.0	
NORTH CAROLINA	1	2	3	36	23			12	1		1	3		1228		139		114	1563
ROW PERCENT	0.1	0.1	0.2	2.3	1.5			0.8	0.1		0.1	0.2		78.6		8.9		7.3	
COL PERCENT	0.1	0.2	0.3	0.4	0.8			0.2	0.1		0.4	0.2		62.5		10.8		2.6	
NORTH DAKOTA				1				1			1						2		5
ROW PERCENT				20.0				20.0			20.0						40.0		
COL PERCENT				0.0				0.0			0.4						0.1		
OHIO	3		5	165	27			21	5	1	1	3	2	45	2	12	3	40	335
ROW PERCENT	0.9		1.5	49.3	8.1			6.3	1.5	0.3	0.3	0.9	0.6	13.4	0.6	3.6	0.9	11.9	
COL PERCENT	0.3		0.5	1.9	0.9			0.3	0.4	0.2	0.4	0.2	0.1	2.3	0.3	0.9	0.1	0.9	

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TABLE 39. TABULATION OF STATE OF RESIDENCE OF INTERCEPTED FISHERMEN
BY STATE OF INTERCEPTED INTERVIEW, JAN 1985--DEC 1985

STATE OF INTERCEPTED INTERVIEW

STATE RESIDENCE	AL	CT	DE	FL	GA	LA	ME	MD	MA	MS	NH	NJ	NY	NC	RI	SC	TX	VA	TOTAL
OKLAHOMA	6			6		1		3	1	4			1			3	18	8	51
ROW PERCENT	11.8			11.8		2.0		5.9	2.0	7.8			2.0			5.9	35.3	15.7	
COL PERCENT	0.6			0.1		0.0		0.0	0.1	0.7			0.0			0.2	0.6	0.2	
OREGON	3			2	2												2	2	11
ROW PERCENT	27.3			18.2	18.2												18.2	18.2	
COL PERCENT	0.3			0.0	0.1												0.1	0.0	
PENNSYLVANIA	1	4	321	106	7	6	1	392	20	1	1	478	2	82	35	15	3	96	1571
ROW PERCENT	0.1	0.3	20.4	6.7	0.4	0.4	0.1	25.0	1.3	0.1	0.1	30.4	0.1	5.2	2.2	1.0	0.2	6.1	
COL PERCENT	0.1	0.4	31.9	1.2	0.2	0.3	0.1	6.2	1.4	0.2	0.4	28.2	0.1	4.2	6.1	1.2	0.1	2.2	
RHODE ISLAND		2		6		2	2		27					1	246		1	1	288
ROW PERCENT		0.7		2.1		0.7	0.7		9.4					0.3	85.4		0.3	0.3	
COL PERCENT		0.2		0.1		0.1	0.3		1.9					0.1	42.9		0.0	0.0	
SOUTH CAROLINA			1	15	27	1		4	1			3	1	20	1	915	4	8	1001
ROW PERCENT			0.1	1.5	2.7	0.1		0.4	0.1			0.3	0.1	2.0	0.1	91.4	0.4	0.8	
COL PERCENT			0.1	0.2	0.9	0.0		0.1	0.1			0.2	0.0	1.0	0.2	70.9	0.1	0.2	
SOUTH DAKOTA				1	2			1					1				3		8
ROW PERCENT				12.5	25.0			12.5					12.5				37.5		
COL PERCENT				0.0	0.1			0.0					0.0				0.1		
TENNESSEE	11	1		75	36	2		4		20				8		17		13	187
ROW PERCENT	5.9	0.5		40.1	19.3	1.1		2.1		10.7				4.3		9.1		7.0	
COL PERCENT	1.1	0.1		0.8	1.2	0.1		0.1		3.3				0.4		1.3		0.3	
TEXAS	4	2	3	22	22	18		7	3	18	1	1	2	3		8	2716	25	2855
ROW PERCENT	0.1	0.1	0.1	0.8	0.8	0.5		0.2	0.1	0.6	0.0	0.0	0.1	0.1		0.3	95.1	0.9	
COL PERCENT	0.4	0.2	0.3	0.2	0.7	0.8		0.1	0.2	3.0	0.4	0.1	0.1	0.2		0.6	95.9	0.6	
UTAH					1														1
ROW PERCENT					100														
COL PERCENT					0.0														
VERMONT				4			28	1	7		2			1				4	47
ROW PERCENT				8.5			59.6	2.1	14.9		4.3			2.1				8.5	
COL PERCENT				0.0			4.1	0.0	0.5		0.8			0.1				0.1	
VIRGINIA	2		5	25	14	3		729	2	3		5	2	425		16	2	3517	4750
ROW PERCENT	0.0		0.1	0.5	0.3	0.1		15.3	0.0	0.1		0.1	0.0	8.9		0.3	0.0	74.0	
COL PERCENT	0.2		0.5	0.3	0.5	0.1		11.6	0.1	0.5		0.3	0.1	21.6		1.2	0.1	80.3	
WASHINGTON						1		2			1						1	4	9
ROW PERCENT						11.1		22.2			11.1						11.1	44.4	
COL PERCENT						0.0		0.0			0.4						0.0	0.1	

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TABLE 39. TABULATION OF STATE OF RESIDENCE OF INTERCEPTED FISHERMEN
BY STATE OF INTERCEPTED INTERVIEW, JAN 1985--DEC 1985

STATE OF INTERCEPTED INTERVIEW

STATE RESIDENCE	AL	CT	DE	FL	GA	LA	ME	MD	MA	MS	NH	NJ	NY	NC	RI	SC	TX	VA	TOTAL
WEST VIRGINIA	1			26	2			57						23		8		20	137
ROW PERCENT	0.7			19.0	1.5			41.6						16.8		5.8		14.6	
COL PERCENT	0.1			0.3	0.1			0.9						1.2		0.6		0.5	
WISCONSIN	1			30	2	1			1					2	1	5		1	44
ROW PERCENT	2.3			68.2	4.5	2.3			2.3					4.5	2.3	11.4		2.3	
COL PERCENT	0.1			0.3	0.1	0.0			0.1					0.1	0.2	0.4		0.0	
WYOMING				3		1		1						3			2		10
ROW PERCENT				30.0		10.0		10.0						30.0			20.0		
COL PERCENT				0.0		0.0		0.0						0.2			0.1		
VIRGIN ISLANDS				1															1
ROW PERCENT				100															
COL PERCENT				0.0															
FOREIGN COUNTRY		2	2	82	2		5	15	1		3	3	2	1		1	7	7	133
ROW PERCENT		1.5	1.5	61.7	1.5		3.8	11.3	0.8		2.3	2.3	1.5	0.8		0.8	5.3	5.3	
COL PERCENT		0.2	0.2	0.9	0.1		0.7	0.2	0.1		1.2	0.2	0.1	0.1		0.1	0.2	0.2	
UNKNOWN					1										1				2
ROW PERCENT					50.0										50.0				
COL PERCENT					0.0										0.2				
TOTALS	974	1033	1007	8885	3021	2129	675	6278	1387	598	243	1695	2284	1964	574	1290	2831	4381	41249

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TABLE 40. TABULATION OF NUMBER OF HOUSEHOLDS INTERVIEWED AND NUMBER OF FISHING HOUSEHOLDS BY WAVE, SUBREGION, AND STATE FOR TELEPHONE SURVEY, JAN 1985--DEC 1985

PART 1 OF 6
JAN/FEB WAVE

SUBREGION	STATE	FISHING HOUSEHOLDS	NONFISHING HOUSEHOLDS	TOTAL HOUSEHOLDS
NORTH ATLANTIC				
	CONNECTICUT	0	0	0
	MAINE	0	0	0
	MASSACHUSETTS	0	0	0
	NEW HAMPSHIRE	0	0	0
	RHODE ISLAND	0	0	0
	TOTALS	0	0	0
MID ATLANTIC				
	DELAWARE	0	0	0
	MARYLAND	0	0	0
	NEW JERSEY	0	0	0
	NEW YORK	0	0	0
	VIRGINIA	0	0	0
	TOTALS	0	0	0
SOUTH ATLANTIC				
	FLORIDA	72	592	664
	GEORGIA	14	226	240
	NORTH CAROLINA	0	0	0
	SOUTH CAROLINA	0	0	0
	TOTALS	86	818	904
GULF				
	ALABAMA	5	164	169
	FLORIDA	57	442	499
	LOUISIANA	19	417	436
	MISSISSIPPI	4	180	184
	TEXAS	31	496	527
	TOTALS	116	1,699	1,815
	WAVE TOTALS	202	2,517	2,719

TABLE 40. TABULATION OF NUMBER OF HOUSEHOLDS INTERVIEWED AND NUMBER OF FISHING HOUSEHOLDS BY WAVE, SUBREGION, AND STATE FOR TELEPHONE SURVEY, JAN 1985--DEC 1985

PART 2 OF 6
MAR/APR WAVE

SUBREGION	STATE	FISHING HOUSEHOLDS	NONFISHING HOUSEHOLDS	TOTAL HOUSEHOLDS
NORTH ATLANTIC				
	CONNECTICUT	23	725	748
	MAINE	5	473	478
	MASSACHUSETTS	18	1,053	1,071
	NEW HAMPSHIRE	6	376	382
	RHODE ISLAND	25	490	515
	TOTALS	77	3,117	3,194
MID ATLANTIC				
	DELAWARE	5	218	223
	MARYLAND	12	537	549
	NEW JERSEY	24	681	705
	NEW YORK	27	904	931
	VIRGINIA	21	383	404
	TOTALS	89	2,723	2,812
SOUTH ATLANTIC				
	FLORIDA	108	790	898
	GEORGIA	18	288	306
	NORTH CAROLINA	39	400	439
	SOUTH CAROLINA	29	366	395
	TOTALS	194	1,844	2,038
GULF				
	ALABAMA	22	188	210
	FLORIDA	76	594	670
	LOUISIANA	34	521	555
	MISSISSIPPI	27	233	260
	TEXAS	73	605	678
	TOTALS	232	2,141	2,373
	WAVE TOTALS	592	9,825	10,417

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TABLE 40. TABULATION OF NUMBER OF HOUSEHOLDS INTERVIEWED AND NUMBER OF FISHING HOUSEHOLDS BY WAVE, SUBREGION, AND STATE FOR TELEPHONE SURVEY, JAN 1985--DEC 1985

PART 3 OF 6
MAY/JUN WAVE

SUBREGION	STATE	FISHING HOUSEHOLDS	NONFISHING HOUSEHOLDS	TOTAL HOUSEHOLDS
NORTH ATLANTIC				
	CONNECTICUT	53	1,126	1,179
	MAINE	32	604	636
	MASSACHUSETTS	97	1,251	1,348
	NEW HAMPSHIRE	19	472	491
	RHODE ISLAND	42	589	631
	TOTALS	243	4,042	4,285
MID ATLANTIC				
	DELAWARE	27	252	279
	MARYLAND	45	628	673
	NEW JERSEY	64	862	926
	NEW YORK	62	1,106	1,168
	VIRGINIA	41	555	596
	TOTALS	239	3,403	3,642
SOUTH ATLANTIC				
	FLORIDA	110	924	1,034
	GEORGIA	32	378	410
	NORTH CAROLINA	65	513	578
	SOUTH CAROLINA	32	476	508
	TOTALS	239	2,291	2,530
GULF				
	ALABAMA	22	299	321
	FLORIDA	99	746	845
	LOUISIANA	49	657	706
	MISSISSIPPI	31	252	283
	TEXAS	92	791	883
	TOTALS	293	2,745	3,038
	WAVE TOTALS	1,014	12,481	13,495

NOTE: THE TELEPHONE ZONE IN THE SOUTH ATLANTIC AND GULF OF MEXICO SUBREGIONS INCLUDED COUNTIES THAT ARE WITHIN 50 MILES OF THE COAST.

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TABLE 40. TABULATION OF NUMBER OF HOUSEHOLDS INTERVIEWED AND NUMBER OF FISHING HOUSEHOLDS BY WAVE, SUBREGION, AND STATE FOR TELEPHONE SURVEY, JAN 1985--DEC 1985

PART 4 OF 6
JUL/AUG WAVE

SUBREGION	STATE	FISHING HOUSEHOLDS	NONFISHING HOUSEHOLDS	TOTAL HOUSEHOLDS
NORTH ATLANTIC				
	CONNECTICUT	94	1,326	1,420
	MAINE	58	694	752
	MASSACHUSETTS	152	1,481	1,633
	NEW HAMPSHIRE	41	545	586
	RHODE ISLAND	65	697	762
	TOTALS	410	4,743	5,153
MID ATLANTIC				
	DELAWARE	33	257	290
	MARYLAND	57	654	711
	NEW JERSEY	109	1,113	1,222
	NEW YORK	78	1,417	1,495
	VIRGINIA	63	638	701
	TOTALS	340	4,079	4,419
SOUTH ATLANTIC				
	FLORIDA	113	1,166	1,279
	GEORGIA	35	446	481
	NORTH CAROLINA	67	615	682
	SOUTH CAROLINA	48	557	605
	TOTALS	263	2,784	3,047
GULF				
	ALABAMA	37	395	432
	FLORIDA	126	879	1,005
	LOUISIANA	63	809	872
	MISSISSIPPI	35	311	346
	TEXAS	116	979	1,095
	TOTALS	377	3,373	3,750
	WAVE TOTALS	1,390	14,979	16,369

NOTE: THE TELEPHONE ZONE IN THE SOUTH ATLANTIC AND GULF OF MEXICO SUBREGIONS INCLUDED COUNTIES THAT ARE WITHIN 50 MILES OF THE COAST.

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TABLE 40. TABULATION OF NUMBER OF HOUSEHOLDS INTERVIEWED AND NUMBER OF FISHING HOUSEHOLDS BY WAVE, SUBREGION, AND STATE FOR TELEPHONE SURVEY, JAN 1985--DEC 1985

PART 5 OF 6
SEP/OCT WAVE

SUBREGION	STATE	FISHING HOUSEHOLDS	NONFISHING HOUSEHOLDS	TOTAL HOUSEHOLDS
NORTH ATLANTIC				
	CONNECTICUT	77	1,269	1,346
	MAINE	26	698	724
	MASSACHUSETTS	82	1,483	1,565
	NEW HAMPSHIRE	15	549	564
	RHODE ISLAND	61	681	742
	TOTALS	261	4,680	4,941
MID ATLANTIC				
	DELAWARE	20	262	282
	MARYLAND	51	649	700
	NEW JERSEY	72	1,079	1,151
	NEW YORK	64	1,380	1,444
	VIRGINIA	32	606	638
	TOTALS	239	3,976	4,215
SOUTH ATLANTIC				
	FLORIDA	112	1,105	1,217
	GEORGIA	43	415	458
	NORTH CAROLINA	77	557	634
	SOUTH CAROLINA	53	527	580
	TOTALS	285	2,604	2,889
GULF				
	ALABAMA	21	354	375
	FLORIDA	98	861	959
	LOUISIANA	71	751	822
	MISSISSIPPI	25	313	338
	TEXAS	100	939	1,039
	TOTALS	315	3,218	3,533
	WAVE TOTALS	1,100	14,478	15,578

NOTE: THE TELEPHONE ZONE IN THE SOUTH ATLANTIC AND GULF OF MEXICO SUBREGIONS INCLUDED COUNTIES THAT ARE WITHIN 50 MILES OF THE COAST.

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TABLE 40. TABULATION OF NUMBER OF HOUSEHOLDS INTERVIEWED AND NUMBER OF FISHING HOUSEHOLDS BY WAVE, SUBREGION, AND STATE FOR TELEPHONE SURVEY, JAN 1985--DEC 1985

PART 6 OF 6
NOV/DEC WAVE

SUBREGION	STATE	FISHING HOUSEHOLDS	NONFISHING HOUSEHOLDS	TOTAL HOUSEHOLDS
NORTH ATLANTIC				
	CONNECTICUT	17	884	901
	MAINE	3	473	476
	MASSACHUSETTS	19	1,013	1,032
	NEW HAMPSHIRE	6	368	374
	RHODE ISLAND	13	475	488
	TOTALS	58	3,213	3,271
MID ATLANTIC				
	DELAWARE	6	196	202
	MARYLAND	4	509	513
	NEW JERSEY	16	682	698
	NEW YORK	24	852	876
	VIRGINIA	14	498	512
	TOTALS	64	2,737	2,801
SOUTH ATLANTIC				
	FLORIDA	65	790	855
	GEORGIA	28	282	310
	NORTH CAROLINA	29	393	422
	SOUTH CAROLINA	38	351	389
	TOTALS	160	1,816	1,976
GULF				
	ALABAMA	17	202	219
	FLORIDA	46	587	633
	LOUISIANA	55	493	548
	MISSISSIPPI	30	211	241
	TEXAS	71	593	664
	TOTALS	219	2,086	2,305
	WAVE TOTALS	501	9,852	10,353

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TABLE 41. ESTIMATES OF THE STANDARD ERRORS OF THE TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC			MID-ATLANTIC			SOUTH ATLANTIC			GULF			ALL SUBREGIONS		
	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV
	THOUSANDS														
01. SHARKS				437	87	20	548	67	12	772	142	18	1,774	180	10
02. SHARKS, DOGFISH	639	368	58	1,669	449	27	100	26	25	61	33	54	2,469	583	24
03. SKATES/RAYS	933	261	28	491	143	29	437	99	23	655	171	26	2,516	357	14
04. EELS	482	262	54	226	86	38	72	24	33	124	26	21	904	278	31
05. HERRINGS	308	99	32	352	174	49	5,183	1734	33	7,727	5974	77	13,570	6224	46
06. FRESHWATER CATFISHES	*	*	*	347	52	15				100	24	24	464	58	12
07. SALTWATER CATFISHES	*	*	*				3,661	387	11	20,334	1485	7	23,996	1534	6
08. TOADFISHES	50	34	69	3,056	457	15	436	75	17	138	26	19	3,680	465	13
09. ATLANTIC COD	3,611	932	26	62	37	60	*	*	*	*	*	*	3,674	933	25
10. ATLANTIC TOMCOD	150	99	66	*	*	*	*	*	*	*	*	*	150	99	66
11. POLLOCK	2,147	748	35				*	*	*	*	*	*	2,155	748	35
12. SILVER HAKE				103	55	54	*	*	*	*	*	*	112	55	50
13. SEAROBINS	584	123	21	3,562	425	12	168	141	84	46	18	39	4,361	465	11
14. SCULPINS	578	130	22				*	*	*	*	*	*	597	130	22
15. WHITE PERCH	42	27	64	1,006	163	16	130	77	59	*	*	*	1,177	182	15
16. STRIPED BASS	391	145	37	220	47	21	53	25	47	33	21	63	698	156	22
17. BLACK SEA BASS	151	50	33	7,934	1061	13	6,215	1874	30	5,784	1879	32	20,084	2858	14
18. GROUPERS	*	*	*	*	*	*	454	107	23	2,885	500	17	3,339	512	15
19. SEA BASSES				379	117	31	372	87	23	3,621	1293	36	4,376	1302	30
20. BLUEFISH	7,933	1808	23	13,647	1364	10	5,494	870	16	937	169	18	28,010	2432	9
21. JACK CREVALLE	*	*	*	*	*	*	1,033	174	17	164	48	29	1,197	181	15
22. BLUE RUNNER	*	*	*	*	*	*	1,008	211	21	935	330	35	1,943	392	20
23. GREATER AMBERJACK	*	*	*				161	37	23	230	57	25	395	68	17
24. FLORIDA POMPANO	*	*	*	–	–	–	836	161	19	43	13	31	880	162	18
25. JACKS	*	*	*	–	–	–	427	114	27	1,373	352	26	1,808	370	20
26. DOLPHINS	*	*	*	36	15	41	787	232	29	609	208	34	1,432	312	22
27. GRAY SNAPPER	*	*	*	*	*	*	1,082	227	21	1,657	399	24	2,740	459	17
28. RED SNAPPER	*	*	*	*	*	*	1,285	621	48	1,954	440	23	3,239	761	24
29. LANE SNAPPER	*	*	*	*	*	*	183	63	35	284	264	93	467	272	58
30. VERMILION SNAPPER	*	*	*	*	*	*	966	264	27	462	179	39	1,428	319	22

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TABLE 41. ESTIMATES OF THE STANDARD ERRORS OF THE TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC			MID-ATLANTIC			SOUTH ATLANTIC			GULF			ALL SUBREGIONS		
	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV
	THOUSANDS														
31. YELLOWTAIL SNAPPER	*	*	*	*	*	*	404	154	38	535	252	47	938	295	31
32. SNAPPERS	*	*	*	*	*	*	207	43	21	187	47	25	394	64	16
33. PIGFISH	*	*	*	62	27	44	1,396	483	35	1,312	206	16	2,770	526	19
34. WHITE GRUNT	*	*	*	*	*	*	557	131	24	3,973	1266	32	4,530	1273	28
35. GRUNTS	*	*	*	–	–	–	2,145	345	16	4,513	1107	25	6,658	1160	17
36. SCUP	8,424	1317	16	7,008	1612	23				*	*	*	15,447	2082	13
37. PINFISH	*	*	*	–	–	–	2,511	397	16	9,374	1008	11	11,887	1083	9
38. SHEEPSHEAD	*	*	*	*	*	*	603	102	17	2,224	368	17	2,828	382	14
39. RED PORGY	*	*	*	*	*	*	238	72	30	1,110	466	42	1,349	471	35
40. PORGIES	*	*	*	–	–	–	366	84	23	334	135	40	717	159	22
41. SPOTTED SEATROUT	*	*	*				2,024	345	17	14,682	1590	11	16,728	1627	10
42. WEAKFISH	–	–	–	3,099	470	15	359	138	38	*	*	*	3,486	490	14
43. SAND SEATROUT	*	*	*	*	*	*	*	*	*	9,509	1945	20	9,509	1945	20
44. SILVER PERCH	*	*	*				181	56	31	1,734	476	27	1,924	480	25
45. SPOT	*	*	*	12,142	1531	13	13,052	1623	12	49	30	62	25,243	2231	9
46. KINGFISHES	*	*	*	82	22	27	2,461	315	13	3,537	897	25	6,079	951	16
47. ATLANTIC CROAKER	*	*	*	5,553	930	17	5,869	1381	24	12,264	1057	9	23,686	1972	8
48. BLACK DRUM	*	*	*				263	54	20	1,089	139	13	1,362	149	11
49. RED DRUM	*	*	*	–	–	–	1,292	190	15	4,110	413	10	5,404	455	8
50. DRUMS	*	*	*	–	–	–	811	611	75	2,052	752	37	2,872	969	34
51. MULLETS	*	*	*	338	224	66	4,283	1820	43	7,162	1778	25	11,783	2554	22
52. BARRACUDAS	*	*	*	*	*	*	287	72	25	108	63	59	396	96	24
53. TAUTOG	566	98	17	3,573	634	18				*	*	*	4,148	641	15
54. CUNNER	1,680	411	24	1,505	451	30	*	*	*	*	*	*	3,185	610	19
55. LITTLE TUNNY/ATL.BONITO	–	–	–	187	76	41	359	202	56	287	69	24	844	227	27
56. ATLANTIC MACKEREL	4,984	3067	62	3,300	1920	58				*	*	*	8,300	3618	44
57. KING MACKEREL	*	*	*				947	351	37	235	65	28	1,183	357	30
58. SPANISH MACKEREL	*	*	*	*	*	*	711	263	37	1,452	247	17	2,163	361	17
59. TUNAS/MACKERELS				187	48	26	595	235	39	201	93	46	1,013	258	25
60. SUMMER FLOUNDER	535	202	38	15,236	2371	16	2,431	806	33	*	*	*	18,202	2512	14

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TABLE 41. ESTIMATES OF THE STANDARD ERRORS OF THE TOTAL NUMBER OF FISH CAUGHT BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC			MID-ATLANTIC			SOUTH ATLANTIC			GULF			ALL SUBREGIONS		
	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV
	THOUSANDS														
61. GULF FLOUNDER	*	*	*	*	*	*				502	80	16	512	81	16
62. SOUTHERN FLOUNDER	*	*	*				593	76	13	1,960	381	19	2,558	388	15
63. WINTER FLOUNDER	8,427	1410	17	22,632	5682	25	*	*	*	*	*	*	31,059	5855	19
64. FLOUNDERS	1,097	289	26	2,325	570	25	45	17	39	424	68	16	3,891	643	17
65. TRIGGERFISHES/FILEFISHES	*	*	*	_	_	_	283	70	25	339	73	22	648	102	16
66. PUFFERS				377	65	17	449	137	30	157	44	28	1,009	159	16
67. OTHER FISHES	1,823	501	27	2,622	679	26	2,642	780	30	6,350	1185	19	13,437	1651	12
TOTALS	45,662	4328	9	113,898	7264	6	79,523	4340	5	142,695	7907	6	381,778	12363	3

NOTE: EST. = ESTIMATE, S.E. = STANDARD ERROR OF ESTIMATE, CV = COEFFICIENT OF VARIATION

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: AN UNDERSCORE (_) DENOTES AN ESTIMATE LESS THAN THIRTY THOUSAND. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

END OF TABLE

TABLE 42. ESTIMATES OF THE STANDARD ERRORS OF THE TOTAL NUMBER OF FISH CAUGHT (CATCH TYPE A + B1) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC			MID-ATLANTIC			SOUTH ATLANTIC			GULF			ALL SUBREGIONS		
	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV
	THOUSANDS														
01. SHARKS				97	23	24	264	42	16	446	126	28	809	135	17
02. SHARKS, DOGFISH	72	65	90	224	60	27	40	11	29				347	89	26
03. SKATES/RAYS							144	74	52	163	80	49	362	111	31
04. EELS	89	33	37	165	81	49							289	88	31
05. HERRINGS	290	99	34	299	172	58	4,771	1725	36	7,546	5973	79	12,906	6221	48
06. FRESHWATER CATFISHES	*	*	*	186	40	21							200	40	20
07. SALTWATER CATFISHES	*	*	*	*	*	*	704	112	16	3,045	412	14	3,749	427	11
08. TOADFISHES				405	86	21	122	35	29				534	93	17
09. ATLANTIC COD	3,206	906	28	57	37	64	*	*	*	*	*	*	3,263	906	28
10. ATLANTIC TOMCOD	150	99	66	*	*	*	*	*	*	*	*	*	150	99	66
11. POLLOCK	1,860	740	40				*	*	*	*	*	*	1,867	740	40
12. SILVER HAKE				103	55	54	*	*	*	*	*	*	109	55	51
13. SEAROBINS	58	31	55	367	89	24							439	95	22
14. SCULPINS	274	102	37				*	*	*	*	*	*	274	102	37
15. WHITE PERCH	-	-	-	593	127	22	122	76	62	*	*	*	745	151	20
16. STRIPED BASS	148	100	67	43	13	30	34	17	50	32	21	65	258	104	41
17. BLACK SEA BASS	94	46	49	4,844	967	20	4,318	1803	42	3,349	1671	50	12,606	2642	21
18. GROUPERS	*	*	*	*	*	*	363	101	28	2,254	464	21	2,617	475	18
19. SEA BASSES				153	90	58	234	78	33	603	187	31	992	221	22
20. BLUEFISH	7,216	1800	25	11,829	1337	11	4,712	860	18	545	137	25	24,303	2406	10
21. JACK CREVALLE	*	*	*	*	*	*	461	108	23	114	45	40	575	117	20
22. BLUE RUNNER	*	*	*	*	*	*	534	166	31	231	65	28	765	178	23
23. GREATER AMBERJACK	*	*	*				107	31	29	230	57	25	338	65	19
24. FLORIDA POMPANO	*	*	*	-	-	-	482	97	20	37	13	34	521	98	19
25. JACKS	*	*	*	-	-	-	272	106	39	777	296	38	1,052	315	30
26. DOLPHINS	*	*	*				780	232	30	603	208	35	1,412	312	22
27. GRAY SNAPPER	*	*	*	*	*	*	700	199	28	988	286	29	1,688	348	21
28. RED SNAPPER	*	*	*	*	*	*	1,085	611	56	1,676	381	23	2,762	720	26
29. LANE SNAPPER	*	*	*	*	*	*	146	60	41	284	264	93	430	271	63
30. VERMILION SNAPPER	*	*	*	*	*	*	948	263	28	436	179	41	1,385	318	23

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TABLE 42. ESTIMATES OF THE STANDARD ERRORS OF THE TOTAL NUMBER OF FISH CAUGHT (CATCH TYPE A + B1) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC			MID-ATLANTIC			SOUTH ATLANTIC			GULF			ALL SUBREGIONS		
	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV
	THOUSANDS														
31. YELLOWTAIL SNAPPER	*	*	*	*	*	*	346	151	44	440	247	56	786	289	37
32. SNAPPERS	*	*	*	*	*	*	123	29	23	136	40	29	259	49	19
33. PIGFISH	*	*	*	32	17	53	861	423	49	355	82	23	1,248	431	35
34. WHITE GRUNT	*	*	*	*	*	*	286	91	32	2,902	1158	40	3,188	1161	36
35. GRUNTS	*	*	*	-	-	-	1,409	325	23	1,839	745	41	3,249	813	25
36. SCUP	5,978	1219	20	6,240	1599	26				*	*	*	12,226	2011	16
37. PINFISH	*	*	*				671	128	19	3,100	436	14	3,774	455	12
38. SHEEPSHEAD	*	*	*	*	*	*	514	100	19	1,603	345	22	2,117	359	17
39. RED PORGY	*	*	*	*	*	*	212	70	33	780	383	49	992	389	39
40. PORGIES	*	*	*	-	-	-	218	44	20	287	134	46	519	141	27
41. SPOTTED SEATROUT	*	*	*				1,896	343	18	9,774	1425	15	11,687	1466	13
42. WEAKFISH				2,685	434	16	343	138	40	*	*	*	3,057	456	15
43. SAND SEATROUT	*	*	*	*	*	*	*	*	*	8,344	1936	23	8,344	1936	23
44. SILVER PERCH	*	*	*				121	53	43	449	196	44	580	203	35
45. SPOT	*	*	*	8,973	1449	16	11,866	1614	14	40	30	74	20,878	2169	10
46. KINGFISHES	*	*	*	70	21	30	2,035	303	15	3,041	891	29	5,146	942	18
47. ATLANTIC CROAKER	*	*	*	3,404	834	25	2,719	444	16	4,791	619	13	10,914	1130	10
48. BLACK DRUM	*	*	*				244	53	22	774	123	16	1,028	134	13
49. RED DRUM	*	*	*	*	*	*	1,027	173	17	2,271	293	13	3,299	340	10
50. DRUMS	*	*	*	-	-	-	808	611	76	1,779	745	42	2,588	963	37
51. MULLETS	*	*	*	120	64	54	4,006	1818	45	6,581	1768	27	10,706	2536	24
52. BARRACUDAS	*	*	*	*	*	*	120	45	37	73	58	79	193	73	38
53. TAUTOG	458	94	21	2,751	562	20				*	*	*	3,218	570	18
54. CUNNER	453	197	43	71	32	45	*	*	*	*	*	*	524	199	38
55. LITTLE TUNNY/ATL.BONITO	-	-	-	180	76	42	258	200	77	185	56	30	634	221	35
56. ATLANTIC MACKEREL	4,750	3065	65	2,973	1861	63				*	*	*	7,739	3585	46
57. KING MACKEREL	*	*	*				927	350	38	227	65	29	1,154	356	31
58. SPANISH MACKEREL	*	*	*	*	*	*	650	262	40	1,326	243	18	1,976	357	18
59. TUNAS/MACKERELS				149	41	27	538	232	43	199	93	47	916	254	28
60. SUMMER FLOUNDER	498	201	40	12,728	2304	18	1,909	771	40	*	*	*	15,135	2438	16

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TABLE 42. ESTIMATES OF THE STANDARD ERRORS OF THE TOTAL NUMBER OF FISH CAUGHT (CATCH TYPE A + B1) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC			MID-ATLANTIC			SOUTH ATLANTIC			GULF			ALL SUBREGIONS		
	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV
	THOUSANDS														
61. GULF FLOUNDER	*	*	*	*	*	*				400	65	16	410	66	16
62. SOUTHERN FLOUNDER	*	*	*				493	70	14	1,250	182	15	1,747	195	11
63. WINTER FLOUNDER	7,195	1358	19	15,933	5183	33	*	*	*	*	*	*	23,128	5358	23
64. FLOUNDERS	469	180	38	1,430	525	37				265	58	22	2,172	558	26
65. TRIGGERFISHES/FILEFISHES	*	*	*	_	_	_	215	64	30	274	69	25	508	95	19
66. PUFFERS				144	41	29	200	106	53				375	116	31
67. OTHER FISHES	1,481	466	31	1,360	527	39	851	119	14	1,528	267	17	5,221	762	15
TOTALS	34,877	4209	12	78,757	6698	9	57,295	3952	7	78,452	7267	9	249,382	11447	5

NOTE: EST. = ESTIMATE, S.E. = STANDARD ERROR OF ESTIMATE, CV = COEFFICIENT OF VARIATION

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: AN UNDERSCORE (_) DENOTES AN ESTIMATE LESS THAN THIRTY THOUSAND. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

CATCH TYPE A: AN ESTIMATE OF PART OF THE TOTAL CATCH BASED ON FISH BROUGHT ASHORE IN WHOLE FORM, AVAILABLE FOR INTERVIEWER IDENTIFICATION AND ENUMERATION, FROM WHICH SAMPLES OF LENGTHS AND WEIGHTS WERE OBTAINED.

CATCH TYPE B1: AN ESTIMATE OF PART OF THE TOTAL CATCH BASED ON FISH NOT AVAILABLE IN WHOLE FORM FOR INTERVIEWER'S IDENTIFICATION, AS REPORTED BY FISHERMEN. INCLUDED ARE THOSE FISH USED AS BAIT, FILLETED, GIVEN AWAY, DISCARDED DEAD, ETC., EXCLUDING FISH RELEASED ALIVE.

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TABLE 43. ESTIMATES OF THE STANDARD ERRORS OF THE NUMBER OF FISH CAUGHT (CATCH TYPE A) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC			MID-ATLANTIC			SOUTH ATLANTIC			GULF			ALL SUBREGIONS		
	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV
							THOUSANDS								
01. SHARKS	*	*	*	58	19	32	146	32	22	246	107	44	450	113	25
02. SHARKS, DOGFISH	-	-	-	108	36	34	-	-	-	*	*	*	120	37	31
03. SKATES/RAYS	39	16	42	158	81	51	*	*	*	-	-	-	63	18	29
04. EELS	44	24	56	72	43	60	-	-	-	-	-	-	197	83	42
05. HERRINGS													155	52	34
06. FRESHWATER CATFISHES	*	*	*	165	39	24							179	39	22
07. SALTWATER CATFISHES	*	*	*	*	*	*	469	101	21	383	69	18	852	122	14
08. TOADFISHES				37	33	88							52	34	65
09. ATLANTIC COD	889	442	50	57	37	65	*	*	*	*	*	*	945	443	47
10. ATLANTIC TOMCOD	115	97	84	*	*	*	*	*	*	*	*	*	115	97	84
11. POLLOCK	234	86	37				*	*	*	*	*	*	241	87	36
12. SILVER HAKE				99	55	56	*	*	*	*	*	*	102	55	54
13. SEAROBINS	34	29	86	202	77	38	*	*	*				236	82	35
14. SCULPINS	-	-	-				*	*	*	*	*	*			
15. WHITE PERCH	-	-	-	528	125	24	122	76	62	*	*	*	680	149	22
16. STRIPED BASS	43	26	59	33	11	33							98	30	31
17. BLACK SEA BASS	32	13	42	3,450	869	25	3,709	1793	48	2,293	1577	69	9,483	2541	27
18. GROUPERS	*	*	*	*	*	*	315	98	31	1,200	377	31	1,514	389	26
19. SEA BASSES							177	75	42	138	97	70	320	122	38
20. BLUEFISH	5,119	1737	34	7,508	1069	14	3,514	830	24	318	97	30	16,459	2204	13
21. JACK CREVALLE	*	*	*	*	*	*	414	106	26	34	19	55	447	108	24
22. BLUE RUNNER	*	*	*	*	*	*	117	46	39	63	26	41	180	53	29
23. GREATER AMBERJACK	*	*	*	*	*	*	87	30	34	185	51	28	272	59	22
24. FLORIDA POMPANO	*	*	*				402	91	23				422	92	22
25. JACKS	*	*	*	-	-	-	54	17	32	128	39	30	184	42	23
26. DOLPHINS	*	*	*				543	212	39	126	76	61	697	226	32
27. GRAY SNAPPER	*	*	*	*	*	*	630	197	31	502	173	34	1,132	262	23
28. RED SNAPPER	*	*	*	*	*	*	993	610	61	1,459	369	25	2,453	713	29
29. LANE SNAPPER	*	*	*	*	*	*	92	47	51	284	264	93	377	268	71
30. VERMILION SNAPPER	*	*	*	*	*	*	455	149	33	144	64	45	599	162	27

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TABLE 43. ESTIMATES OF THE STANDARD ERRORS OF THE NUMBER OF FISH CAUGHT (CATCH TYPE A) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC			MID-ATLANTIC			SOUTH ATLANTIC			GULF			ALL SUBREGIONS		
	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV
	THOUSANDS														
31. YELLOWTAIL SNAPPER	*	*	*	*	*	*	49	19	39	333	239	72	383	240	63
32. SNAPPERS	*	*	*	*	*	*	63	19	30	76	29	38	139	34	25
33. PIGFISH	*	*	*	31	17	55	815	422	52	153	59	38	1,000	427	43
34. WHITE GRUNT	*	*	*	*	*	*	178	67	37	1,892	923	49	2,070	925	45
35. GRUNTS	*	*	*	–	–	–	732	266	36	732	603	82	1,465	659	45
36. SCUP	5,268	1175	22	5,816	1587	27				*	*	*	11,084	1975	18
37. PINFISH	*	*	*				538	124	23	423	150	35	962	194	20
38. SHEEPSHEAD	*	*	*	*	*	*	449	94	21	1,006	309	31	1,455	323	22
39. RED PORGY	*	*	*	*	*	*	176	67	38	260	130	50	435	146	34
40. PORGIES	*	*	*	–	–	–	185	42	23	120	82	68	319	92	29
41. SPOTTED SEATROUT	*	*	*				1,654	334	20	6,273	1055	17	7,944	1107	14
42. WEAKFISH				2,025	389	19	303	137	45	*	*	*	2,356	413	18
43. SAND SEATROUT	*	*	*	*	*	*	*	*	*	4,078	942	23	4,078	942	23
44. SILVER PERCH	*	*	*	*	*	*	113	52	47	198	124	63	310	135	43
45. SPOT	*	*	*	7,561	1415	19	8,099	1350	17	39	30	76	15,699	1955	12
46. KINGFISHES	*	*	*	56	19	35	1,704	289	17	892	265	30	2,652	393	15
47. ATLANTIC CROAKER	*	*	*	3,074	831	27	2,200	422	19	2,598	381	15	7,872	1007	13
48. BLACK DRUM	*	*	*				230	52	23	649	119	18	890	130	15
49. RED DRUM	*	*	*	*	*	*	757	129	17	1,741	255	15	2,498	285	11
50. DRUMS	*	*	*	–	–	–	750	609	81	625	468	75	1,375	768	56
51. MULLETS	*	*	*	51	31	61	1,734	1429	82	543	175	32	2,327	1440	62
52. BARRACUDAS	*	*	*	*	*	*	52	15	30	64	58	90	116	60	52
53. TAUTOG	306	69	23	2,469	554	22				*	*	*	2,783	559	20
54. CUNNER	127	65	51				*	*	*	*	*	*	151	66	44
55. LITTLE TUNNY/ATL.BONITO	–	–	–	107	68	64	134	192	143	105	48	46	357	210	59
56. ATLANTIC MACKEREL	895	428	48	2,859	1859	65	*	*	*	*	*	*	3,754	1907	51
57. KING MACKEREL	*	*	*				803	348	43	170	62	36	973	354	36
58. SPANISH MACKEREL	*	*	*	*	*	*	573	259	45	845	203	24	1,418	329	23
59. TUNAS/MACKERELS				86	29	34	444	228	51	95	73	77	654	242	37
60. SUMMER FLOUNDER	216	71	33	7,568	1518	20	1,489	723	49	*	*	*	9,274	1683	18

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TABLE 43. ESTIMATES OF THE STANDARD ERRORS OF THE NUMBER OF FISH CAUGHT (CATCH TYPE A) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC			MID-ATLANTIC			SOUTH ATLANTIC			GULF			ALL SUBREGIONS		
	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV
	THOUSANDS														
61. GULF FLOUNDER	*	*	*	*	*	*				378	64	17	388	65	17
62. SOUTHERN FLOUNDER	*	*	*				389	57	15	982	156	16	1,375	167	12
63. WINTER FLOUNDER	4,584	1135	25	14,946	5177	35	*	*	*	*	*	*	19,529	5300	27
64. FLOUNDERS				56	26	47				72	24	34	141	36	26
65. TRIGGERFISHES/FILEFISHES	*	*	*	_	_	_	194	63	32	214	61	29	418	88	21
66. PUFFERS				124	40	32	140	95	68				273	103	38
67. OTHER FISHES	218	105	48	1,051	481	46	636	95	15	379	107	28	2,284	513	22
TOTALS	18,304	2472	14	60,478	6357	11	37,930	3193	8	33,518	2645	8	150,230	7982	5

NOTE: EST. = ESTIMATE, S.E. = STANDARD ERROR OF ESTIMATE, CV = COEFFICIENT OF VARIATION

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: AN UNDERSCORE (_) DENOTES AN ESTIMATE LESS THAN THIRTY THOUSAND. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

CATCH TYPE A: AN ESTIMATE OF PART OF THE TOTAL CATCH BASED ON FISH BROUGHT ASHORE IN WHOLE FORM, AVAILABLE FOR INTERVIEWER IDENTIFICATION AND ENUMERATION, FROM WHICH SAMPLES OF LENGTHS AND WEIGHTS WERE OBTAINED.

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TABLE 44. ESTIMATES OF THE STANDARD ERRORS OF THE NUMBER OF FISH CAUGHT (CATCH TYPE B1) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC			MID-ATLANTIC			SOUTH ATLANTIC			GULF			ALL SUBREGIONS		
	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV
	THOUSANDS														
01. SHARKS				39	14	35	118	27	23	201	66	33	359	73	20
02. SHARKS, DOGFISH	68	65	96	115	47	41	33	11	33				227	81	36
03. SKATES/RAYS							129	74	57	137	80	58	299	110	37
04. EELS	50	28	56	-	-	-							92	31	34
05. HERRINGS	246	96	39	227	167	74	4,747	1725	36	7,531	5973	79	12,751	6220	49
06. FRESHWATER CATFISHES	*	*	*				*	*	*	*	*	*			
07. SALTWATER CATFISHES	*	*	*	*	*	*	235	49	21	2,662	406	15	2,897	409	14
08. TOADFISHES	*	*	*	367	79	21	110	35	31				483	86	18
09. ATLANTIC COD	2,317	791	34				*	*	*	*	*	*	2,318	791	34
10. ATLANTIC TOMCOD	35	21	62	*	*	*	*	*	*	*	*	*	35	21	62
11. POLLOCK	1,626	735	45	*	*	*	*	*	*	*	*	*	1,626	735	45
12. SILVER HAKE	-	-	-				*	*	*	*	*	*			
13. SEAROBINS				165	44	27							203	47	23
14. SCULPINS	271	102	38	*	*	*	*	*	*	*	*	*	271	102	38
15. WHITE PERCH	*	*	*	65	25	39	*	*	*	*	*	*	65	25	39
16. STRIPED BASS	105	97	92							31	21	67	159	100	63
17. BLACK SEA BASS	63	44	71	1,394	423	30	609	194	32	1,056	555	52	3,122	725	23
18. GROUPERS	*	*	*	*	*	*	48	25	51	1,054	270	26	1,102	272	25
19. SEA BASSES	*	*	*	150	90	60	57	21	37	465	160	34	671	184	27
20. BLUEFISH	2,098	471	22	4,321	803	19	1,199	227	19	226	96	42	7,844	963	12
21. JACK CREVALLE	*	*	*	*	*	*	48	18	38	80	41	52	128	45	35
22. BLUE RUNNER	*	*	*	*	*	*	417	159	38	168	60	35	585	170	29
23. GREATER AMBERJACK	*	*	*							46	26	56	67	27	40
24. FLORIDA POMPANO	*	*	*	*	*	*	80	33	41				99	34	35
25. JACKS	*	*	*	*	*	*	218	105	48	649	294	45	867	312	36
26. DOLPHINS	*	*	*				237	93	39	477	194	41	715	215	30
27. GRAY SNAPPER	*	*	*	*	*	*	71	28	40	486	228	47	557	230	41
28. RED SNAPPER	*	*	*	*	*	*	92	36	39	217	96	44	309	102	33
29. LANE SNAPPER	*	*	*	*	*	*	54	37	68	*	*	*	54	37	68
30. VERMILION SNAPPER	*	*	*	*	*	*	493	217	44	292	167	57	785	274	35

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TABLE 44. ESTIMATES OF THE STANDARD ERRORS OF THE NUMBER OF FISH CAUGHT (CATCH TYPE B1) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC			MID-ATLANTIC			SOUTH ATLANTIC			GULF			ALL SUBREGIONS		
	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV
	THOUSANDS														
31. YELLOWTAIL SNAPPER	*	*	*	*	*	*	297	150	51	107	59	55	404	162	40
32. SNAPPERS	*	*	*	*	*	*	60	22	36	60	27	45	120	35	29
33. PIGFISH	*	*	*				46	30	66	201	56	28	248	64	26
34. WHITE GRUNT	*	*	*	-	-	-	108	63	58	1,010	699	69	1,118	702	63
35. GRUNTS	*	*	*	*	*	*	677	186	27	1,107	437	39	1,784	475	27
36. SCUP	710	325	46	425	193	45				*	*	*	1,142	378	33
37. PINFISH	*	*	*				133	33	25	2,677	410	15	2,812	411	15
38. SHEEPSHEAD	*	*	*	-	-	-	65	34	52	597	155	26	662	158	24
39. RED PORGY	*	*	*	*	*	*	36	19	53	521	360	69	557	361	65
40. PORGIES	*	*	*	-	-	-	33	14	44	167	106	63	200	107	53
41. SPOTTED SEATROUT	*	*	*				242	75	31	3,501	958	27	3,743	961	26
42. WEAKFISH	*	*	*	661	194	29	40	15	37	*	*	*	701	194	28
43. SAND SEATROUT	*	*	*	*	*	*	*	*	*	4,266	1692	40	4,266	1692	40
44. SILVER PERCH	*	*	*							252	152	60	270	152	56
45. SPOT	*	*	*	1,412	312	22	3,767	885	23	-	-	-	5,179	938	18
46. KINGFISHES	*	*	*				331	89	27	2,149	851	40	2,494	856	34
47. ATLANTIC CROAKER	*	*	*	329	72	22	519	138	27	2,194	488	22	3,042	512	17
48. BLACK DRUM	*	*	*	*	*	*				125	34	27	138	35	25
49. RED DRUM	*	*	*	*	*	*	270	115	43	530	144	27	801	184	23
50. DRUMS	*	*	*	-	-	-	58	53	90	1,154	579	50	1,214	582	48
51. MULLETS	*	*	*	69	56	82	2,272	1124	49	6,038	1759	29	8,378	2088	25
52. BARRACUDAS	*	*	*	*	*	*	68	42	62				77	43	55
53. TAUTOG	152	64	42	282	93	33	*	*	*	*	*	*	434	113	26
54. CUNNER	326	186	57	47	29	62	*	*	*	*	*	*	373	188	51
55. LITTLE TUNNY/ATL.BONITO	-	-	-	73	33	45	124	55	44	80	28	35	277	70	25
56. ATLANTIC MACKEREL	3,854	3035	79	114	83	72				*	*	*	3,985	3036	76
57. KING MACKEREL	*	*	*	*	*	*	125	38	31	56	21	36	181	43	24
58. SPANISH MACKEREL	*	*	*	*	*	*	78	37	48	481	134	28	558	139	25
59. TUNAS/MACKERELS				63	28	45	94	44	46	104	57	55	262	77	29
60. SUMMER FLOUNDER	281	188	67	5,160	1733	34	420	267	63	*	*	*	5,861	1763	30

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TABLE 44. ESTIMATES OF THE STANDARD ERRORS OF THE NUMBER OF FISH CAUGHT (CATCH TYPE B1) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC			MID-ATLANTIC			SOUTH ATLANTIC			GULF			ALL SUBREGIONS		
	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV
	THOUSANDS														
61. GULF FLOUNDER	*	*	*	*	*	*	*	*	*						
62. SOUTHERN FLOUNDER	*	*	*	*	*	*	104	41	39	268	93	35	372	102	27
63. WINTER FLOUNDER	2,611	745	29	988	253	26	*	*	*	*	*	*	3,599	787	22
64. FLOUNDERS	461	180	39	1,375	524	38	_	_	_	193	53	28	2,031	557	27
65. TRIGGERFISHES/FILEFISHES	*	*	*	_	_	_	_	_	_	59	32	55	90	36	40
66. PUFFERS	*	*	*				60	46	78				102	52	51
67. OTHER FISHES	1,264	454	36	308	215	70	215	72	34	1,149	245	21	2,936	563	19
TOTALS	16,573	3407	21	18,279	2111	12	19,365	2329	12	44,934	6769	15	99,151	8204	8

NOTE: EST. = ESTIMATE, S.E. = STANDARD ERROR OF ESTIMATE, CV = COEFFICIENT OF VARIATION

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: AN UNDERSCORE (_) DENOTES AN ESTIMATE LESS THAN THIRTY THOUSAND. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

CATCH TYPE B1: AN ESTIMATE OF PART OF THE TOTAL CATCH BASED ON FISH NOT AVAILABLE IN WHOLE FORM FOR INTERVIEWER'S IDENTIFICATION, AS REPORTED BY FISHERMEN. INCLUDED ARE THOSE FISH USED AS BAIT, FILLETED, GIVEN AWAY, DISCARDED DEAD, ETC., EXCLUDING FISH RELEASED ALIVE.

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TABLE 45. ESTIMATES OF THE STANDARD ERRORS OF THE NUMBER OF FISH CAUGHT (CATCH TYPE B2) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC			MID-ATLANTIC			SOUTH ATLANTIC			GULF			ALL SUBREGIONS		
	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV
	THOUSANDS														
01. SHARKS				340	83	25	283	53	19	326	67	21	964	120	12
02. SHARKS, DOGFISH	567	363	64	1,445	445	31	60	23	38	50	32	64	2,122	576	27
03. SKATES/RAYS	908	261	29	462	142	31	293	65	22	492	151	31	2,154	339	16
04. EELS	393	260	66	61	29	46	58	22	38	102	25	24	615	264	43
05. HERRINGS	–	–	–	53	24	45	412	173	42	181	83	46	664	194	29
06. FRESHWATER CATFISHES	*	*	*	161	33	21				93	24	26	264	41	16
07. SALTWATER CATFISHES	*	*	*				2,957	370	13	17,289	1426	8	20,247	1473	7
08. TOADFISHES	48	34	71	2,652	449	17	314	66	21	132	26	20	3,146	456	14
09. ATLANTIC COD	405	221	55				*	*	*	*	*	*	410	221	54
10. ATLANTIC TOMCOD	–	–	–	*	*	*	*	*	*	*	*	*	–	–	–
11. POLLOCK	287	110	38				*	*	*	*	*	*	287	110	38
12. SILVER HAKE				*	*	*	*	*	*	*	*	*			
13. SEAROBINS	526	119	23	3,196	416	13	156	141	90	44	18	40	3,922	455	12
14. SCULPINS	304	80	26				*	*	*	*	*	*	323	80	25
15. WHITE PERCH	–	–	–	413	101	25	–	–	–	*	*	*	433	102	24
16. STRIPED BASS	243	105	43	177	46	26							441	116	26
17. BLACK SEA BASS	57	20	34	3,090	437	14	1,897	510	27	2,435	858	35	7,479	1090	15
18. GROUPERS	*	*	*	*	*	*	91	33	37	631	188	30	722	191	26
19. SEA BASSES				226	76	34	138	39	28	3,019	1280	42	3,384	1283	38
20. BLUEFISH	716	172	24	1,818	268	15	782	128	16	392	99	25	3,708	357	10
21. JACK CREVALLE	*	*	*	*	*	*	572	137	24	50	16	32	621	137	22
22. BLUE RUNNER	*	*	*	*	*	*	475	131	28	704	324	46	1,178	350	30
23. GREATER AMBERJACK	*	*	*				54	19	36	*	*	*	56	19	35
24. FLORIDA POMPANO	*	*	*	*	*	*	354	129	36				359	129	36
25. JACKS	*	*	*	–	–	–	155	42	27	596	190	32	757	194	26
26. DOLPHINS	*	*	*												
27. GRAY SNAPPER	*	*	*	*	*	*	382	109	29	669	278	42	1,052	299	28
28. RED SNAPPER	*	*	*	*	*	*	199	111	56	278	220	79	477	247	52
29. LANE SNAPPER	*	*	*	*	*	*	37	22	60	*	*	*	37	22	60
30. VERMILION SNAPPER	*	*	*	*	*	*	–	–	–	–	–	–	43	19	43

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TABLE 45. ESTIMATES OF THE STANDARD ERRORS OF THE NUMBER OF FISH CAUGHT (CATCH TYPE B2) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC			MID-ATLANTIC			SOUTH ATLANTIC			GULF			ALL SUBREGIONS		
	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV
	THOUSANDS														
31. YELLOWTAIL SNAPPER	•	•	•	•	•	•	57	26	45	95	51	54	152	57	38
32. SNAPPERS	•	•	•	•	•	•	84	32	38	51	24	48	135	41	30
33. PIGFISH	•	•	•	30	21	70	534	232	43	958	189	20	1,522	301	20
34. WHITE GRUNT	•	•	•	•	•	•	271	94	35	1,071	514	48	1,343	522	39
35. GRUNTS	•	•	•	•	•	•	735	116	16	2,674	819	31	3,409	827	24
36. SCUP	2,446	498	20	767	209	27				•	•	•	3,222	540	17
37. PINFISH	•	•	•	•	•	•	1,840	375	20	6,273	909	14	8,113	984	12
38. SHEEPSHEAD	•	•	•				90	24	26	620	127	20	710	129	18
39. RED PORGY	•	•	•	•	•	•				330	265	80	357	266	74
40. PORGIES	•	•	•	–	–	–	147	71	48	47	18	37	197	73	37
41. SPOTTED SEATROUT	•	•	•				128	43	33	4,908	705	14	5,041	706	14
42. WEAKFISH	•	•	•	413	180	44				•	•	•	429	180	42
43. SAND SEATROUT	•	•	•	•	•	•	•	•	•	1,165	186	16	1,165	186	16
44. SILVER PERCH	•	•	•	•	•	•	60	19	31	1,284	434	34	1,344	435	32
45. SPOT	•	•	•	3,170	494	16	1,186	170	14	–	–	–	4,365	523	12
46. KINGFISHES	•	•	•				426	88	21	496	97	20	933	131	14
47. ATLANTIC CROAKER	•	•	•	2,149	411	19	3,150	1308	42	7,472	857	11	12,772	1617	13
48. BLACK DRUM	•	•	•							315	64	20	334	65	19
49. RED DRUM	•	•	•	–	–	–	265	79	30	1,839	292	16	2,105	302	14
50. DRUMS	•	•	•	–	–	–	–	–	–	273	102	37	284	102	36
51. MULLETS	•	•	•	218	215	98	277	87	31	582	192	33	1,077	301	28
52. BARRACUDAS	•	•	•	•	•	•	167	57	34	35	26	73	203	62	31
53. TAUTOG	108	29	26	822	292	36				•	•	•	931	294	32
54. CUNNER	1,227	361	29	1,434	450	31	•	•	•	•	•	•	2,662	577	22
55. LITTLE TUNNY/ATL.BONITO	•	•	•	–	–	–	101	30	30	102	40	39	210	50	24
56. ATLANTIC MACKEREL	234	114	48	327	474	145	•	•	•	•	•	•	561	487	87
57. KING MACKEREL	•	•	•	•	•	•									
58. SPANISH MACKEREL	•	•	•	•	•	•	60	29	48	126	42	33	187	51	27
59. TUNAS/MACKERELS	•	•	•	38	25	67	57	35	62				98	44	45
60. SUMMER FLOUNDER	38	18	49	2,508	558	22	522	235	45	•	•	•	3,068	606	20

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TABLE 45. ESTIMATES OF THE STANDARD ERRORS OF THE NUMBER OF FISH CAUGHT (CATCH TYPE B2) BY MARINE RECREATIONAL FISHERMEN BY SPECIES GROUP AND SUBREGION, JAN 1985--DEC 1985

SPECIES GROUP	NORTH ATLANTIC			MID-ATLANTIC			SOUTH ATLANTIC			GULF			ALL SUBREGIONS		
	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV	EST.	S.E.	CV
	THOUSANDS														
61. GULF FLOUNDER	*	*	*	*	*	*	*	*	*	102	48	47	102	48	47
62. SOUTHERN FLOUNDER	*	*	*				100	28	28	711	334	47	811	336	41
63. WINTER FLOUNDER	1,231	382	31	6,699	2329	35	*	*	*	*	*	*	7,930	2360	30
64. FLOUNDERS	628	227	36	895	221	25	37	16	44	159	34	22	1,719	319	19
65. TRIGGERFISHES/FILEFISHES	*	*	*	_	_	_	68	30	44	65	23	35	140	38	27
66. PUFFERS				233	50	22	249	86	35	128	38	30	634	110	17
67. OTHER FISHES	341	183	54	1,262	429	34	1,791	771	43	4,822	1155	24	8,217	1465	18
TOTALS	10,785	1008	9	35,141	2811	8	22,228	1792	8	64,243	3115	5	132,396	4672	4

NOTE: EST. = ESTIMATE, S.E. = STANDARD ERROR OF ESTIMATE, CV = COEFFICIENT OF VARIATION

NOTE: AN ASTERISK (*) DENOTES NONE REPORTED.

NOTE: AN UNDERSCORE (_) DENOTES AN ESTIMATE LESS THAN THIRTY THOUSAND. HOWEVER, THE FIGURE IS INCLUDED IN ROW AND COLUMN TOTALS.

CATCH TYPE B2: AN ESTIMATE OF PART OF THE TOTAL CATCH BASED ON FISH RELEASED ALIVE, AS REPORTED BY THE FISHERMEN.

END OF TABLE

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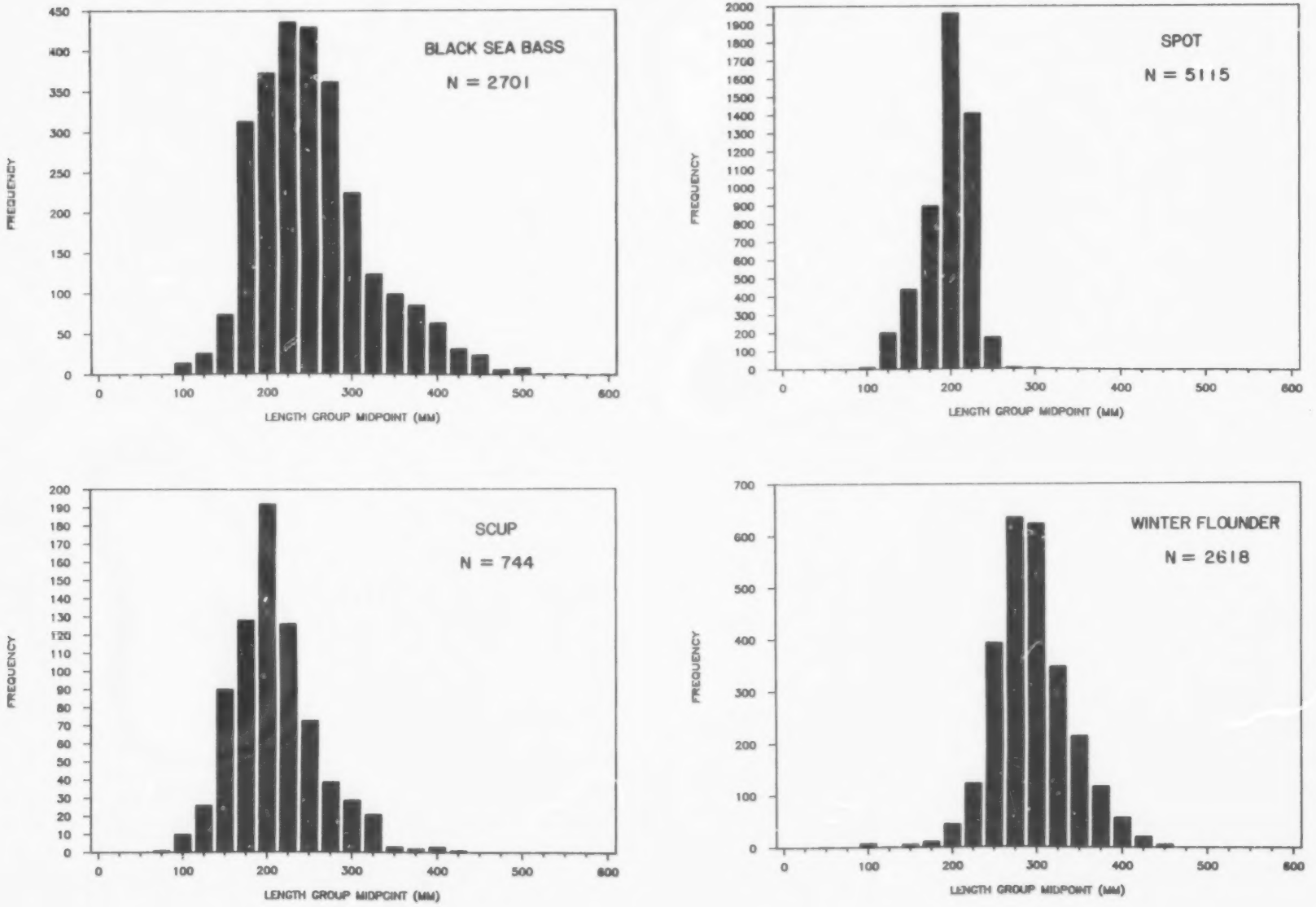

Figure 4. Length frequency histograms (fork length) for selected fishes, Atlantic and Gulf coasts, 1985.

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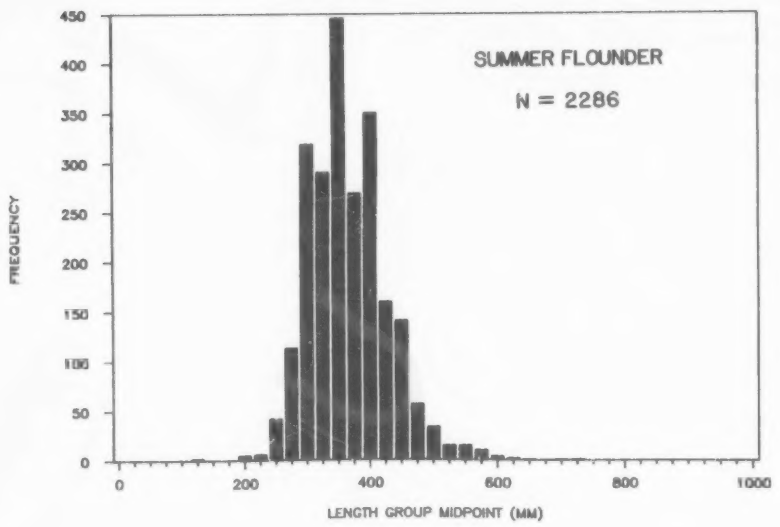

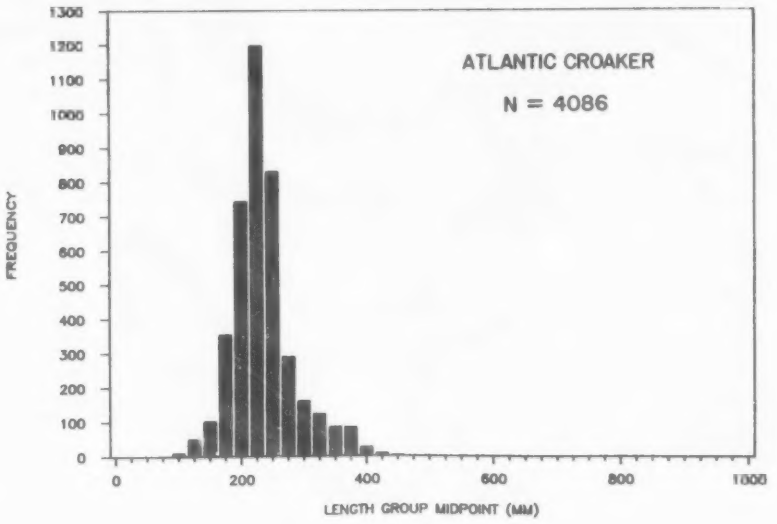

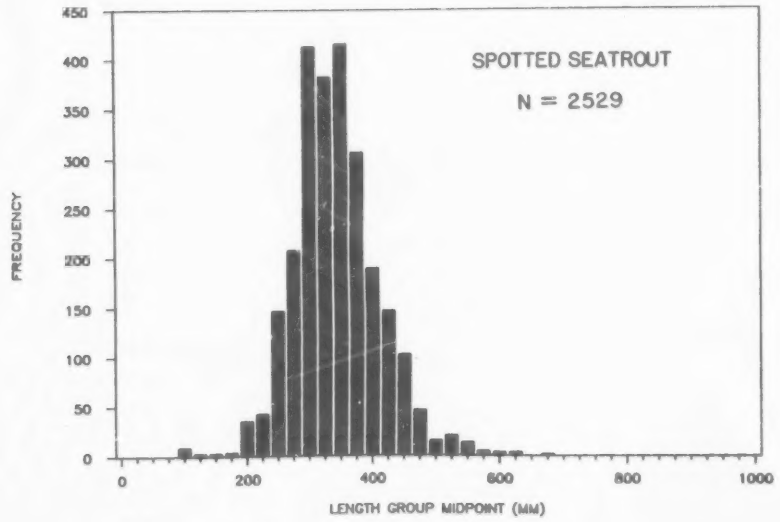

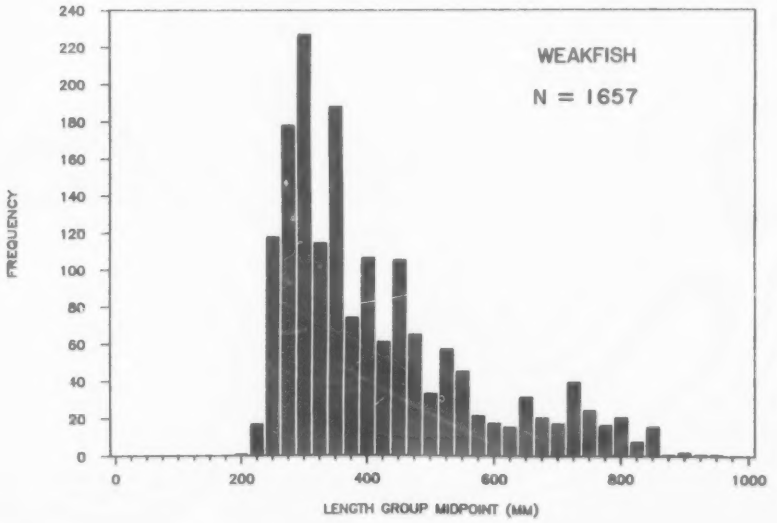

Figure 4 continued.

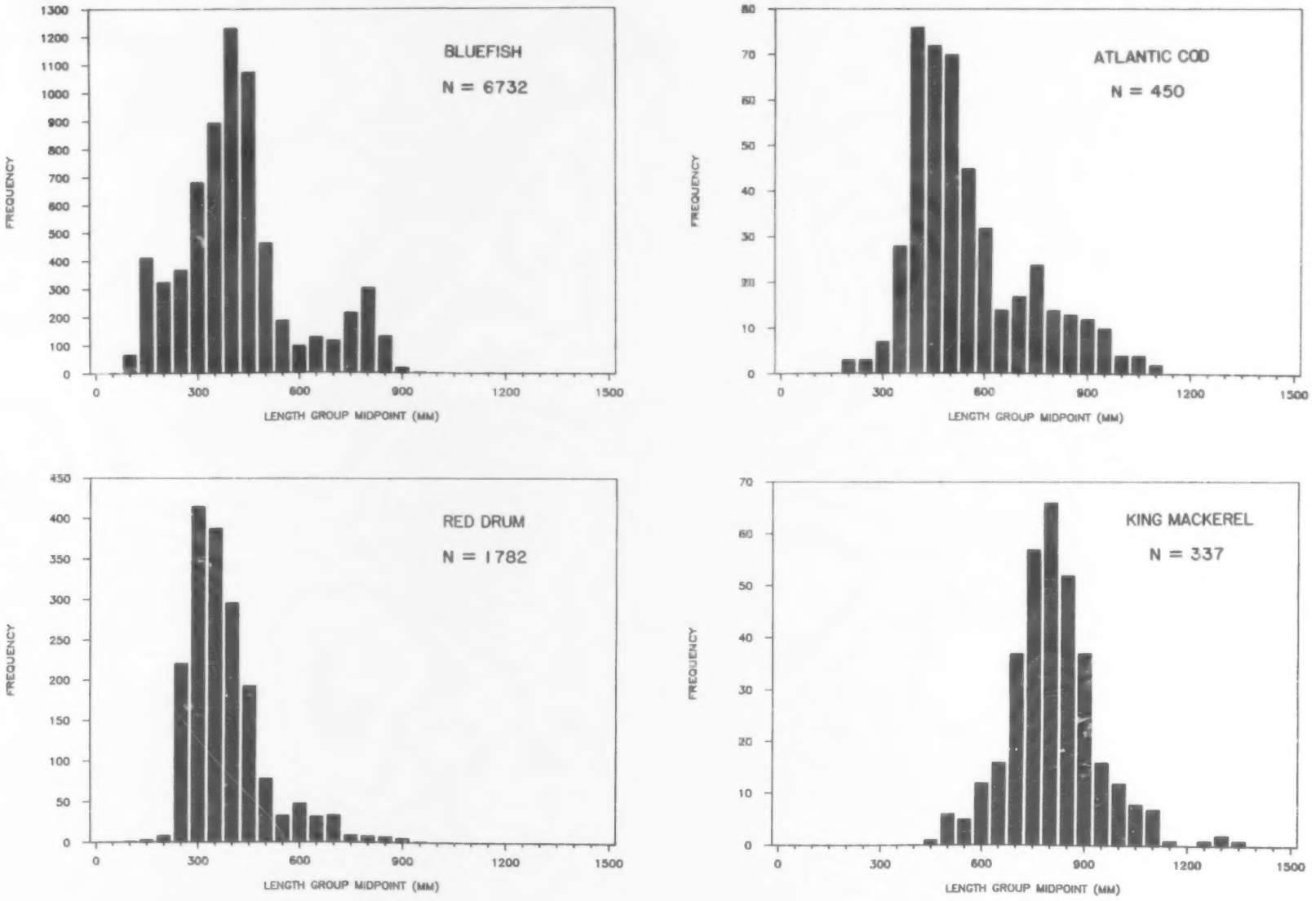

Figure 4 continued.

BEST COPY AVAILABLE

I. List of Species Included in Each Species Group, 1985 Atlantic and Gulf Survey

Species Group Number	Species Group Name	Scientific Name	Common Name
1	Sharks	Ginglymostoma cirratum	Nurse shark
		Odontaspididae	Sand tigers
		Odontaspis taurus	Sand tiger
		Alopias vulpinus	Thresher shark
		Lamnidae	Mackerel sharks
		Isurus oxyrinchus	Shortfin mako
		Scyliorhinidae	Cat sharks
		Carcharhinidae	Requiem sharks
		Carcharinus spp.	Shark genus
		Carcharinus acronotus	Blacknose shark
		Carcharinus falciformes	Silky shark
		Carcharinus leucas	Bull shark
		Carcharinus limbatus	Blacktip shark
		Carcharinus obscurus	Dusky shark
		Carcharinus perezi	Reef shark
		Carcharinus plumbeus	Sandbar shark
		Galeocerdo cuvieri	Tiger shark
		Negaprion brevirostris	Lemon shark
		Prionace glauca	Blue shark
		Rhizoprionodon terraenovae	Atlantic sharpnose shark
		Sphyrna spp.	Hammerhead genus
		Sphyrna lewini	Scalloped hammerhead
		Sphyrna mokarran	Great hammerhead
		Sphyrna tiburo	Bonnethead
		Sphyrna tudes	Smalleye hammerhead
		Sphyrna zygaena	Smooth hammerhead
		unidentified sharks	
2	Dogfish sharks	Mustelus canis	Smooth dogfish
		Squalidae	Dogfish sharks
		Centroscyllium fabricii	Black dogfish
		Squalus acanthias	Spiny dogfish
3	Skates/rays	Rajidae	Skates
		Raja spp.	Skate genus
		Raja eglanteria	Clearnose skate
		Raja erinacea	Little skate
		Raja ocellata	Winter skate
		Raja radiata	Thorny skate
		Raja spinicauda	Spinytail skate
		Dasyatidae	Stingrays

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I. List of Species Included in Each Species Group, 1985 Atlantic and Gulf Survey

Species Group Number	Species Group Name	Scientific Name	Common Name
3	Skates/rays - continued	Dasyatis americana	Southern stingray
		Dasyatis centroura	Roughtail stingray
		Dasyatis sabina	Atlantic stingray
		Dasyatis sayi	Bluntnose stingray
		Urolophus jamaicensis	Yellow stingray
		Rhinoptera bonasus	Cownose ray
4	Eels	Anguilliformes	Eels
		Anguilla rostrata	American eel
		Chlopsis bicolor	Bicolor eel
		Muraenidae	Morays
		Gymnothorax spp.	Moray genus
		Gymnothorax funebris	Green moray
		Gymnothorax moringa	Spotted moray
		Gymnothorax nigromarginatus	Blackedge moray
		Conger oceanicus	Conger eel
		Ophichthidae	Snake eels
		Apterichthus ansp	Academy eel
		Bascanichthys scuticaris	Whip eel
		Myrichthys acuminatus	Sharptail eel
		Ophichthus gomesi	Shrimp eel
5	Herrings	Clupeidae	Herrings
		Alosa spp.	River herring genus
		Alosa chrysochloris	Skipjack herring
		Alosa pseudoharengus	Alewife
		Alosa sapidissima	American shad
		Brevoortia spp.	Menhaden genus
		Brevoortia patronus	Gulf menhaden
		Brevoortia tyrannus	Atlantic menhaden
		Brevoortia gunteri	Finescale menhaden
		Clupea harengus harengus	Atlantic herring
		Dorosoma cepedianum	Gizzard shad
		Eutremes teres	Round herring
		Harengula clupeola	False pilchard
		Harengula jaguana	Scaled sardine
		Opisthonema oglinum	Atlantic thread herring
		Sardinella aurita	Spanish sardine
6	Freshwater catfishes	Ictaluridae	Bullhead catfishes
		Ictalurus spp.	Bullhead catfish genus
		Ictalurus catus	White catfish
		Ictalurus furcatus	Blue catfish

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I. List of Species Included in Each Species Group, 1985 Atlantic and Gulf Survey

Species Group Number	Species Group Name	Scientific Name	Common Name
6	Freshwater catfishes - continued	Ictalurus natalis	Yellow bullhead
		Ictalurus punctatus	Channel catfish
7	Saltwater catfishes	Ariidae	Sea catfishes
		Arius felis	Hardhead catfish
		Bagre marinus	Gafftopsail catfish
8	Toadfishes	Batrachoididae	Toadfishes
		Porichthys porosissimus	Atlantic midshipman
		Opsanus spp.	Toadfish genus
		Opsanus beta	Gulf toadfish
		Opsanus pardus	Leopard toadfish
		Opsanus tau	Oyster toadfish
9	Atlantic cod	Gadus morhua	Atlantic cod
10	Atlantic tomcod	Microgadus tomcod	Atlantic tomcod
11	Pollock	Pollachius virens	Pollock
12	Silver hake	Merluccius bilinearis	Silver hake
13	Searobins	Triglidae	Searobins
		Prionotus spp.	Searobin genus
		Prionotus alatus	Spiny searobin
		Prionotus carolinus	Northern searobin
		Prionotus evolans	Striped searobin
		Prionotus tribulus	Bighead searobin
14	Sculpins	Cottidae	Sculpins
		Hemitripterus americanus	Sea raven
		Myoxocephalus spp.	Sculpin genus
		Myoxocephalus octodecemspinous	Longhorn sculpin
		Myoxocephalus scorpius	Shorthorn sculpin
15	White perch	Morone americana	White perch
16	Striped bass	Morone saxatilis	Striped bass
17	Black sea bass	Centropristis striata	Black sea bass

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I. List of Species Included in Each Species Group, 1985 Atlantic and Gulf Survey

Species Group Number	Species Group Name	Scientific Name	Common Name
18	Groupers	Epinephelus spp.	Grouper genus
		Epinephelus adscensionis	Rock hind
		Epinephelus cruentatus	Graysby
		Epinephelus guttatus	Red hind
		Epinephelus inermis	Marbled grouper
		Epinephelus itajara	Jewfish
		Epinephelus morio	Red grouper
		Epinephelus nigritus	Warsaw grouper
		Epinephelus striatus	Nassau grouper
		Mycteroperca spp.	Grouper genus
		Mycteroperca bonaci	Black grouper
		Mycteroperca interstitialis	Yellowmouth grouper
		Mycteroperca microlepis	Gag
		Mycteroperca phenax	Scamp
		Mycteroperca rubra	Comb grouper
19	Sea basses	Serranidae	Sea basses
		Centropristis spp.	Sea bass genus
		Centropristis ocyurus	Bank sea bass
		Centropristis philadelphica	Rock sea bass
		Diplectrum bivittatum	Dwarf sand perch
		Diplectrum formosum	Sand perch
		Hypoplectrus guttavarius	Shy hamlet
		Paranthias furcifer	Creole-fish
20	Bluefish	Pomatomus saltatrix	Bluefish
21	Jack crevalle	Caranx hippos	Crevalle jack
22	Blue runner	Caranx crysos	Blue runner
23	Greater amberjack	Seriola dumerili	Greater amberjack
24	Florida pompano	Trachinotus carolinus	Florida pompano
25	Jacks	Carangidae	Jacks
		Alectis ciliaris	African pompano
		Caranx spp.	Jack genus
		Caranx bartholomaei	Yellow jack
		Caranx latus	Horse-eye jack
		Caranx lugubris	Black jack
		Caranx ruber	Bar jack
		Decapterus spp.	Scad genus

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I. List of Species Included in Each Species Group, 1985 Atlantic and Gulf Survey

Species Group Number	Species Group Name	Scientific Name	Common Name
25	Jacks - continued	Decapterus punctatus	Round scad
		Decapterus tabl	Redtail scad
		Elagatis bipinnulata	Rainbow runner
		Hemicaranx amblyrhynchus	Bluntnose jack
		Naucrates ductor	Pilotfish
		Oligoplites saurus	Leatherjacket
		Selar crumenophthalmus	Bigeye scad
		Selene setapinnis	Atlantic moonfish
		Selene vomer	Lookdown
		Seriola spp.	Jack genus
		Seriola fasciata	Lesser amberjack
		Seriola rivoliana	Alamaco jack
		Seriola zonata	Banded rudderfish
		Trachinotus falcatus	Permit
		Trachinotus goodei	Palometa
		Trachurus lathami	Rough scad
26	Dolphins	Coryphaenidae	Dolphins
		Coryphaena hippurus	Dolphin
27	Gray snapper	Lutjanus griseus	Gray snapper
28	Red snapper	Lutjanus campechanus	Red snapper
29	Lane snapper	Lutjanus synagris	Lane snapper
30	Vermilion snapper	Rhomboplites aurorubens	Vermilion snapper
31	Yellowtail snapper	Ocyurus chrysurus	Yellowtail snapper
32	Snappers	Lutjanidae	Snappers
		Apsilus dentatus	Black snapper
		Lutjanus analis	Mutton snapper
		Lutjanus apodus	Schoolmaster
		Lutjanus cyanopterus	Cubera snapper
		Lutjanus mahogoni	Mahogany snapper
		Lutjanus vivanus	Silk snapper
33	Pigfish	Orthopristis chrysoptera	Pigfish
34	White grunt	Haemulon plumieri	White grunt

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I. List of Species Included in Each Species Group, 1985 Atlantic and Gulf Survey

Species Group Number	Species Group Name	Scientific Name	Common Name
35	Grunts	Haemulidae	Grunts
		Anisotremus surinamensis	Black margate
		Anisotremus virginicus	Porkfish
		Conodon nobilis	Barred grunt
		Haemulon spp.	Grunt genus
		Haemulon album	Margate
		Haemulon aurolineatum	Tomtate
		Haemulon carbonarium	Caesar grunt
		Haemulon flavolineatum	French grunt
		Haemulon macrostomum	Spanish grunt
		Haemulon parrai	Sailors choice
		Haemulon sciurus	Bluestriped grunt
36	Scup	Stenotomus chrysops	Scup
37	Pinfish	Diplodus holbrooki	Spottail pinfish
		Lagodon rhomboides	Pinfish
38	Sheepshead	Archosargus probatocephalus	Sheepshead
39	Red porgy	Pagrus pagrus	Red porgy
40	Porgies	Sparidae	Porgies
		Archosargus rhomboidalis	Sea bream
		Calamus spp.	Porgy genus
		Calamus arctifrons	Grass porgy
		Calamus bajonado	Jolthead porgy
		Calamus leucosteus	Whitebone porgy
		Calumus nodosus	Knobbed porgy
		Calumus proridens	Littlehead porgy
		Diplodus argenteus	Silver porgy
		Stenotomus caprinus	Longspine porgy
41	Spotted seatrout	Cynoscion nebulosus	Spotted seatrout
42	Weakfish	Cynoscion regalis	Weakfish
43	Sand seatrout	Cynoscion arenarius	Sand seatrout
44	Silver perch	Bairdiella chrysoura	Silver perch
45	Spot	Leistomus xanthurus	Spot

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I. List of Species Included in Each Species Group, 1985 Atlantic and Gulf Survey

Species Group Number	Species Group Name	Scientific Name	Common Name
46	Kingfishes	Menticirrhus spp.	Kingfish genus
		Menticirrhus americanus	Southern kingfish
		Menticirrhus littoralis	Gulf kingfish
		Menticirrhus saxatilis	Northern kingfish
47	Atlantic croaker	Micropogonias undulatus	Atlantic croaker
48	Black drum	Pogonias cromis	Black drum
49	Red drum	Sciaenops ocellatus	Red drum
50	Drums	Sciaenidae	Drums
		Bairdiella batabana	Blue croaker
		Cynoscion spp.	Seatrout genus
		Cynoscion nothus	Silver seatrout
		Equetus umbrosus	Cubbyu
		Aplodinotus grunniens	Freshwater drum
		Larimus fasciatus	Banded drum
		Stellifer lanceolatus	Star drum
51	Mullets	Mugilidae	Mullets
		Mugil cephalus	Striped mullet
		Mugil curema	White mullet
		Mugil trichodon	Fantail mullet
52	Barracudas	Sphyraenidae	Barracudas
		Sphyraena barracuda	Great barracuda
		Sphyraena borealis	Northern sennet
53	Tautog	Tautoga onitis	Tautog
54	Cunner	Tautogolabrus adspersus	Cunner
55	Little tunny/ Atlantic bonito	Euthynnus alletteratus	Little tunny
		Sarda spp.	Bonito genus
		Sarda orientalis	Striped bonito
		Sarda sarda	Atlantic bonito
56	Atlantic mackerel	Scomber scombrus	Atlantic mackerel
57	King mackerel	Scomberomorus cavalla	King mackerel
58	Spanish mackerel	Scomberomorus maculatus	Spanish mackerel

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I. List of Species Included in Each Species Group, 1985 Atlantic and Gulf Survey

Species Group Number	Species Group Name	Scientific Name	Common Name
59	Tunas/mackerels	Scombridae	Mackerels
		Acanthocybium solanderi	Wahoo
		Euthynnus pelamis	Skipjack tuna
		Scomber japonicus	Chub mackerel
		Scomberomorus spp.	Mackerel genus
		Scomberomorus regalis	Cero
		Thunnus spp.	Tuna genus
		Thunnus alalunga	Albacore
		Thunnus albacares	Yellowfin tuna
		Thunnus atlanticus	Blackfin tuna
		Thunnus thynnus	Bluefin tuna
60	Summer flounder	Paralichthys dentatus	Summer flounder
61	Gulf flounder	Paralichthys albigutta	Gulf flounder
62	Southern flounder	Paralichthys lethostigma	Southern flounder
63	Winter flounder	Pseudopleuronectes americanus	Winter flounder
64	Flounders	Pleuronectiformes	Flounders
		Paralichthys spp.	Lefteye flounder genus
		Paralichthys oblongus	Fourspot flounder
		Scopthalmus aquosus	Windowpane
		Pleuronectidae	Righteye flounders
		Hippoglossus hippoglossus	Atlantic halibut
		Soleidae	Soles
		Gymnachirus texae	Fringed sole
65	Triggerfishes/ filefishes	Balistidae	Leatherjackets
		Balistes spp.	Triggerfish genus
		Balistes capriscus	Gray triggerfish
		Balistes vetula	Queen triggerfish
		Canthidermis sufflamen	Ocean triggerfish
66	Puffers	Tetraodontidae	Puffers
		Lagocephalus laevigatus	Smooth puffer
		Sphoeroides spp.	Puffer genus
		Sphoeroides maculatus	Northern puffer
		Sphoeroides nephelus	Southern puffer
		Sphoeroides parvus	Least puffer

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I. List of Species Included in Each Species Group, 1985 Atlantic and Gulf Survey

Species Group Number	Species Group Name	Scientific Name	Common Name
67	Other fishes	Petromyzon marinus	Sea lamprey
		Pristis perotteti	Largetooth sawfish
		Rhinobatos lentiginosus	Atlantic guitarfish
		Torpedo nobiliana	Atlantic torpedo
		Acipenser spp.	Sturgeon genus
		Lepisosteidae	Gars
		Lepisosteus osseus	Longnose gar
		Elops saurus	Ladyfish
		Megalops atlanticus	Tarpon
		Albula vulpes	Bonefish
		Engraulidae	Anchovies
		Oncorhynchus kisutch	Coho salmon
		Salmo trutta	Brown trout
		Osmerus mordax	Rainbow smelt
		Esox niger	Chain pickerel
		Synodontidae	Lizardfishes
		Synodus spp.	Lizardfish genus
		Synodus foetens	Inshore lizardfish
		Synodus intermedius	Sand diver
		Trachinocephalus myops	Snakefish
		Cyprinidae	Minnows
		Cyprinus carpio	Common carp
		Lophius americanus	Goosefish
		Gadidae	Codfishes
		Brosme brosme	Cusk
		Melanogrammus aeglefinus	Haddock
		Urophycis spp.	Hake genus
		Urophycis chuss	Red hake
		Urophycis floridanus	Southern hake
		Urophycis regia	Spotted hake
		Urophycis tenuis	White hake
		Ophidiidae	Cusk-eels
		Zoarcidae	Eelpouts
		Gymnelis viridis	Fish doctor
		Macrozoarces americanus	Ocean pout
		Exocoetidae	Flyingfishes
		Cypselurus heterurus	Atlantic flyingfish
		Hemiramphus brasiliensis	Ballyhoo
		Belonidae	Needlefishes
		Strongylura marina	Atlantic needlefish
		Tylosurus crocodilus	Houndfish
		Cyprinodontidae	Killifishes
		Cyprinodon variegatus	Sheepshead minnow

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I. List of Species Included in Each Species Group, 1985 Atlantic and Gulf Survey

Species Group Number	Species Group Name	Scientific Name	Common Name
67	Other fishes - continued	Fundulus spp.	Killifish genus
		Fundulus heteroclitus	Mummichog
		Fundulus majalis	Striped killifish
		Poeciliidae	Live bearers
		Gambusia affinis	Mosquitofish
		Atherinidae	Silversides
		Menidia menidia	Atlantic silverside
		Holocentridae	Squirrelfishes
		Holocentrus ascensionis	Squirrelfish
		Holocentrus coruscus	Reef squirrelfish
		Holocentrus rufus	Longspine squirrelfish
		Trachipteridae	Ribbonfishes
		Desmodema polysticta	Polka dot ribbonfish
		Aulostomus maculatus	Trumpetfish
		Syngnathidae	Pipefishes
		Hippocampus zosterae	Dwarf seahorse
		Cyclopterus lumpus	Lumpfish
		Perciformes	Perches
		Centropomus ensiferus	Swordspine snook
		Centropomus undecimalis	Snook
		Grammistidae	Soapfishes
		Centrarchidae	Sunfishes
		Lepomis spp.	Sunfish genus
		Lepomis gibbosus	Pumpkinseed
		Lepomis macrochirus	Bluegill
		Micropterus spp.	Freshwater bass genus
		Micropterus dolomieui	Smallmouth bass
		Pomoxis annularis	White crappie
		Pomoxis nigromaculatus	Black crappie
		Percidae	Perches
		Perca flavescens	Yellow perch
		Priacanthus cruentatus	Glasseye snapper
		Pristigenys alta	Short bigeye
		Lopholatilus chamaeleonticeps	Tilefish
		Malacanthus plumieri	Sand tilefish
		Rachycentron canadum	Cobia
		Echeneidae	Remoras
		Echeneis naucrates	Sharksucker
		Remora remora	Remora
		Lobotes surinamensis	Tripletail
		Eucinostomus spp.	Mojarra genus
		Eucinostomus argenteus	Spotfin mojarra

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I. List of Species Included in Each Species Group, 1985 Atlantic and Gulf Survey

Species Group Number	Species Group Name	Scientific Name	Common Name
67	Other fishes - continued	Eucinostomus gula	Silver jenny
		Gerres cinereus	Yellowfin mojarra
		Mullidae	Goatfishes
		Kyphosus spp.	Chub genus
		Kyphosus sectatrix	Bermuda chub
		Chaetodipterus faber	Atlantic spadefish
		Chaetodontidae	Butterflyfishes
		Centropyge argi	Cherubfish
		Holacanthus spp.	Angelfish genus
		Holocanthus bermudensis	Blue angelfish
		Pomacanthus arcuatus	Gray angelfish
		Micropathodon chrysurus	Yellowtail damselfish
		Labridae	Wrasses
		Halichoeres spp.	Wrasse genus
		Bodianus pulchellus	Spotfin hogfish
		Lachnolaimus maximus	Hogfish
		Scaridae	Parrotfishes
		Sparisoma aurofrenatum	Redband parrotfish
		Sparisoma viride	Spotlight parrotfish
		Polynemidae	Threadfins
		Polydactylus octonemus	Atlantic threadfin
		Uranoscopidae	Stargazers
		Astroscopus guttatus	Northern stargazer
		Astroscopus y-graecum	Southern stargazer
		Hypsoblennius hentzi	Feather blenny
		Anarhichadidae	Wolffishes
		Anarhichas spp.	Wolffish genus
		Anarhichas lupus	Atlantic wolffish
		Evorthodus lyricus	Lyre goby
		Acanthuridae	Surgeonfishes
		Trichiurus lepturus	Atlantic cutlassfish
		Istiophorus platypterus	Sailfish
		Makaira nigricans	Blue marlin
		Tetrapturus albidus	White marlin
		Stromateidae	Butterfishes
		Peprilus burti	Gulf butterfish
		Peprilus triacanthus	Butterfish
		Cynoglossidae	Tonguefishes
		Scorpaenidae	Scorpionfishes
		Lactpphrys spp.	Cowfish genus
		Lactophrys polygonia	Honeycomb cowfish
		Lactophrys trigonus	Trunkfish
		Diodontidae	Porcupinefishes

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I. List of Species Included in Each Species Group, 1985 Atlantic and Gulf Survey

Species Group Number	Species Group Name	Scientific Name	Common Name
67	Other fishes - continued	*Chilomycterus* spp.	Burrfish genus
		Chilomycterus schoepfi	Striped burrfish
		Diodon holocanthus	Balloonfish
		unidentified fishes	

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APPENDIX A - SAMPLE TELEPHONE SURVEY INSTRUMENT

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MARKET FACTS INC., 676 NORTH ST. CLAIR ST, CHICAGO, ILLINOIS 60611 JOB NO. E580-H
OMB #41-R2999
Expires: 11/30/86

ME, NH, MA, RI, CT, NY,
NJ, DE, VA, NC, SC, GA

RECREATIONAL FISHING QUESTIONNAIRE
SCREENING

Hello, I'm calling long distance for a survey being conducted for the National Marine Fisheries Service of the U.S. Department of Commerce. We're surveying recreational fishermen in various counties in (NAME OF STATE). Your telephone number has been selected at random.

1a. To help me assign your information to the correct location, do you live in (NAME OF COUNTY/PARISH)? (SEE SAMPLE SHEET FOR NAME OF COUNTY/PARISH).

Yes ..... 1 ___(CHECK COUNTY NAME ON SAMPLE SHEET AND SKIP TO QU. 2)

No 2

DK ..... 3 ___(SKIP TO QU. 1C)

Refused ..... X ___(SKIP TO QU. 2; ASK QU. 1A AGAIN LATER ON IN THE INTERVIEW)

1b. In what (county/parish) are you located?

Call Record (County/Parish).. 1 ___(CHECK COUNTY NAME ON SAMPLE SHEET. IF SAME, SKIP TO QU. 2)

Name _____

Other (County/Parish) ..... 2 ___(IF COUNTY REACHED IS NOT ACCEPTABLE, TERMINATE, WRITE THAT COUNTY ON CALL RECORD, AND HAVE YOUR SUPERVISOR ASSIGN THE RESULT CODE "09")

Name _____

Refused ..... X ___(SKIP TO QU. 2; ASK QU. 1A AGAIN LATER IN THE INTERVIEW)

DK ..... 4 ___

1c. In what town do you live?

In Call Record (County/Parish)...1 ___(RECORD NAME OF TOWN ON SAMPLE SHEET UNDER COUNTY NAME AND ASK QU.2)

Name _____

Not Call Record (County/Parish)..2 ___(TQIC AND CODE "00" ON SAMPLE SHEET)

Refused .....X ___(ASK QU. 2; ASK QU. 1A AGAIN LATER IN THE INTERVIEW)

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2. Is this your permanent, year-round residence?

Yes..... 1

No..... 2 ____(TQ2 AND RECORD "08" ON CALL RECORD)

3. We want to gather information from people who have been saltwater sportfishing for finfish, not shellfish, in the last 12 months. Saltwater fishing includes fishing in oceans, sounds, or bays, or in tidal portions of rivers. How many people in your household have been saltwater sportfishing in the last twelve months in this state or from a boat launched from this state?

None ..... 1 ____(RECORD "20" AS CALL RESULT. RECORD "00" ON 12 MONTH LINE TQ3)

One or More .... 2 ____(RECORD # OF FISHERMEN ON 12-MONTH LINE)

Refused ..... X ____(RECORD "22" AS CALL RESULT. LEAVE 12 MONTH LINE EMPTY TQ3)

DK ..... 4 ____(ARRANGE CALLBACK; IF CALLBACK CANNOT BE ARRANGED, RECORD "21" AS CALL RESULT. LEAVE 12 MONTH LINE EMPTY. TQ3)

4a. Thinking just about the past 2 months, how many people in your household have been saltwater sportfishing in this state or from a boat launched from this state?

None ..... 1 ____(RECORD "23" AS RESULT. RECORD "00" ON 2 MONTH LINE TQ4)

One or More .... 2 ____(RECORD "26" AS CALL RESULT, RECORD # OF FISHERMEN IN 2-MONTH LINE)

Refused ..... X ____(RECORD "25" AS CALL RESULT. LEAVE 2 MONTH LINE EMPTY TQ4)

DK..... 4 ____(ARRANGE CALLBACK; IF CALLBACK CANNOT BE ARRANGED, RECORD "24" AS CALL RESULT. LEAVE 2-MONTH LINE EMPTY. TQ4)

4b. (Are any of those people/Is that person) available now?

Yes 1_____(ASK TO SPEAK TO THAT PERSON)

No 2_____(FILL IN NAMES ON COVER SHEET AND ARRANGE CALLBACK)

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TRIP QUESTIONNAIRE

INTRODUCTION WHEN HOUSEHOLD MEMBER ANSWERING THE PHONE IS A FISHERMAN

I'd like to ask you a few questions about your most recent finfishing trips. This survey is being conducted in accordance with the Privacy Act of 1974, therefore you are not obligated to answer any question if you find it to be an invasion of your privacy.

INTRODUCTION WHEN OTHER FISHERMEN IN THE HOUSEHOLD COME TO THE PHONE:

Hello, I'm conducting a survey on saltwater sportfishing for the National Marine Fisheries service. By saltwater fishing, I mean fishing in oceans, sounds, or bays, or in tidal portions of rivers. For the purpose of this survey, it includes only fishing for finfish, not shellfish. I understand that you've been saltwater fishing in the past 2 months, and I'd like to ask you a few questions about your most recent trips. This survey is being conducted in accordance with the Privacy Act of 1974, therefore you are not obligated to answer any question if you find it to be an invasion of your privacy.

Again, we're interested in those trips were you went after finfish, whether you caught any or not, and in those trips where you might have been going after shellfish but caught finfish. Please list the dates of your saltwater sportfishing trips for the past 2 months, starting with your recent trip and working backwards in time. I have a calendar here in front of me, so I can help you with the dates.

DATE 1. When did you last go finfishing?
(ASSIGN TRIP NUMBER AND RECORD DATE OF TRIP ON RESPONSE FORM.)

MODE 2. Were you fishing from a pier, a jetty, a bridge, a beach or a bank, or a boat?

(IF MORE THAN ONE MODE (A, B, C, or D), CODE EACH AS A SEPARATE TRIP. IF MORE THAN ONE CATEGORY WITHIN A MODE, CODE THE ONE USED LAST THAT DAY. CODE NUMBER ONLY, NOT LETTER:)

A.
1. Pier, dock
2. Jetty, breakwater, breachway
3. Bridge, causeway
4. Other manmade structure (e.g., barge)

B.
5. Beach or bank, natural shore area, natural rocks

C.
6. Partyboat, headboat, open boat
7. Charter boat

D.
8. Private or rental boat

9. Refused/Don't Know/Don't Remember

DATE 3. And what was the date of your finfishing trip before that?

(REPEAT QU. 2 AND QU. 3 UNTIL ALL TRIPS FOR THE PAST 2 MONTHS HAVE BEEN COVERED.)

IF RESPONDENT CANNOT REMEMBER DATES: Did you go on any additional trips between the trip you mentioned last and (SPECIFY BEGIN DATE)?

Yes..... 1 ____(How many? Were they from a pier, a jetty, a partyboat, or what? (CODE AS MUCH INFORMATION AS POSSIBLE. CODE "0" IN EACH BOX FOR MISSING INFO.))

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Now I'd like a little more information about each of the trips you just mentioned. (STARTING WITH THE FIRST TRIP MENTIONED BY RESPONDENT, ASK QU. 4, QU. 5, QU. 6, & QU. 7 FOR EACH TRIP BEFORE GOING ON TO THE NEXT TRIP.)

GEAR 4. On (DATE) when you were fishing from a (SPECIFY MODE OR CATEGORIES WITHIN MODE MENTIONED BY RESPONDENT), what kind of gear were you primarily using -- a hook and line, a dip net, or what?

(PROBE TO OBTAIN SINGLE ANSWER. IF NECESSARY, ASK: Which gear was actually in the water more, that is, wet more often?

Hook and line	01	Spear	08
Dip net	02	Butterfly net	09
Cast net	03	Hands	10
Gill net	04	Other	11
Seine	05	Don't know/ Don't Remember	98
Trawl	06	Refusal	99
Trap	07		

AREA 5. Was most of your finfishing effort for fish that day in the ocean, a sound, a river, or a bay? (PROBE BAY - Was that an open bay or an enclosed bay? PROBE INLET - Were you more toward the outside or more toward the inside of the inlet?)

Ocean/Open Bay/ Outside Inlet	1	Enclosed Bay/ Inside Inlet	4
Sound	2	Other	5
River	3	Don't know/ Don't Remember	8
		Refused	9

(Was your fishing in the lower part of the river which is affected by the tide?)

Yes - CONTINUE

No - DELETE TRIP

(GO TO NEXT PAGE)

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OCEAN + BOAT — A

If AREA = ocean (1) and MODE = boat (6,7,8), ask:

THREE MILES — Q6. WAS MOST OF YOUR FISHING EFFORT MORE THAN THREE MILES FROM SHORE, OR THREE MILES OR LESS FROM SHORE?

1. More than three miles
2. Three miles or less
7. Don't know
8. Don't remember
9. Refusal

COUNTY STATE — Q7A. TO WHAT STATE AND COUNTY DID YOUR BOAT RETURN? (If don't know:) DO YOU KNOW THE NAME OF THE TOWN OR CITY? (Record county or city and state on appropriate line on trip response form.)

Return to Q4 for next trip.

OCEAN, NO BOAT — B

If AREA = ocean (1) and MODE = not boat (1,2,3,4,5), ask:

THREE MILES — Q6. Automatically code "2" for "three miles or less"

COUNTY STATE — Q7A. IN WHAT STATE AND COUNTY WERE YOU FISHING? (Record county and state on appropriate line on trip response form.)

Return to Q4 for next trip.

NO OCEAN — C

If AREA ≠ ocean (area = 2,3,4,5), ask:

THREE MILES — Q6. Automatically code "0" for not applicable.

COUNTY STATE — Q7A. (If stationary mode, ask:) IN WHAT STATE AND COUNTY WERE YOU FISHING? (If boat, ask:) TO WHAT STATE AND COUNTY DID YOUR BOAT RETURN?

Return to Q4 for next trip.

Thank you. I would like to verify I reached you by dialing (_ _ _) (_ _ _ - _ _ _ _)

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APPENDIX B - SAMPLE INTERCEPT SURVEY INSTRUMENT

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3. INTERVIEWER CODE: ENTER YOUR 3-DIGIT CODE.
4. YR/MO/DAY: ENTER DATE OF INTERVIEW
5. INTERVIEW NO: CONSECUTIVE NUMBER OF THIS INTERVIEW FOR THE DAY.
6. HOUR: TIME INTERVIEW WAS COMPLETED. USE 24-HOUR TIME.
7. STATE: ENTER STATE CODE WHERE INTERVIEW TOOK PLACE.
8. COUNTY: ENTER COUNTY CODE WHERE INTERVIEW TOOK PLACE.
9. SITE: ENTER SITE CODE WHERE INTERVIEW TOOK PLACE.
10. (QUESTION NOT USED.)
11. INTERVIEW STATUS:

Questionnaire complete 1	Language barrier, etc. 4
Refused non-key items 2	Refused key item 5
Initial Refusal 3	

This study is being conducted in accordance with the Privacy Act of 1974. You are not required to answer any question that you consider to be an invasion of your privacy.

(12) Would you say you were fishing from (SPECIFY APPROPRIATE MODE COMBINATION)?

MM -	Pier, dock. 1	BB -	Beach or bank 5
	Jetty, breakwater, breachway . 2	PC -	Partyboat 6
	Bridge, causeway. 3		Charter boat. 7
	Other man-made structure . . . 4	PR -	Private or rental boat 8

13. - 15. (QUESTIONS NOT USED.)

(16) Was most of your (SPECIFY MODE) fishing effort today in the ocean/gulf, a sound, river, bay or inlet?
(IF BAY, ASK: Was that in an open or an enclosed bay?)
(IF INLET, ASK: Were you more toward the inside of the inlet or the outside of the inlet?)

Open water (ocean, gulf, open bay or outside inlet) 1
Sound 2
River . . . . . 3 → (CODE Q. 17 AS "8". GO TO Q. 19)
Enclosed bay or inside inlet . . . 4
Other (SPECIFY) 5

(17) IF OPEN WATER AND NOT BOAT, CODE "1", GO TO Q. 19. Was that three miles or less from shore, or more than three miles?

Three miles or less 1
More than three miles 2

FOR FLORIDA GULF AND TEXAS, ASK: Was that between three and ten miles or over ten miles?

Between three and ten miles . . . . 3 → (RECORD ONLY 3 OR 4, NOT 2.)
Over ten miles 4

18. (QUESTION NOT USED.)

19. IF MODE IS NOT BOAT, CODE THE STATE OF INTERCEPT. In what state's waters was most of your (SPECIFY MODE) fishing effort?

Don't know 98

20. IF ATLANTIC, CODE "8", GO TO Q. 21. IF GULF AND MODE IS NOT BOAT, CODE "8", GO TO Q. 21. Was most of your boat fishing today within 200 feet of an oil or gas platform, or within 200 feet of an artificial reef? IF YES, ASK: Which?

No 1
Near oil/gas platform . . 2
Near artificial reef . . 3

21. Were you fishing for any particular kinds of fish today?

IF YES, ASK: What kinds? → (CODE ONLY FIRST TWO. LEAVE UNUSED BOXES BLANK.)

22. Have you been fishing here today primarily with a hook and line?

Yes . . . 01 IF NO, ASK: What type of gear have you been using primarily?

Dip net, A-frame net . 02	Seine 05	Spear 08
Cast net 03	Trawl 06	Hand 09
Gill net 04	Trap 07	Other (SPECIFY) 10

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23. To the nearest half-hour, how many hours have you spent (SPECIFY MODE) fishing today?

24. IF COMPLETE TRIP, CODE "88.8", GO TO Q. 25. How many additional hours do you expect to fish from a (SPECIFY MODE)?

25. Not counting today, within the past 12 months, how many days have you gone saltwater sport finfishing in this state, or from a boat launched in this state?

26. Not counting today, how many days within the past two months?

27. What is your state and county of residence? IF COUNTY IS UNKNOWN, ASK: What city or town do you live in?

28. Do you live in a private residence, or in some other type of housing such as a dorm, barracks, nursing home or rooming house?

Private residence 1
Institutional housing unit . . . . . 2 ⟶ (CODE Q. 29 AS "8", GO TO Q. 30)

29. Does your home have a telephone?

Yes 1
No 2

30. In the event that my supervisor wishes to verify that I have been conducting interviews here today, may I have your name and a phone number? IF PHONE IS REFUSED, ASK: May I have an address?

RECORD THE NAME AND PHONE NUMBER OR ADDRESS ON VALIDATION LISTING AND ENTER ONE OF THE FOLLOWING SUMMARY CODES AT Q. 30:

PROVIDED PHONE NUMBER . . 1 PROVIDED ADDRESS . . . . 2 REFUSED BOTH 3

31. IF THIS PERSON'S FISH ARE DESCRIBED ON ANOTHER PERSON'S FORM, CODE Q. 31 AS "3", CODE Q'S. 32-34 AS "8" OR "88", GO TO Q. 35. NOTE: MUST HAVE A TYPE 4 RECORD.

Did you catch any fish while you were (SPECIFY MODE) fishing today that I might be able to look at?

Yes . . 1 ⟶ (NOTE: MUST HAVE AT LEAST ONE TYPE 3 RECORD.)
No . . 2 ⟶ (CODE Q. 32-34 AS "8" OR "88", GO TO Q. 35. NOTE: NO TYPE 3 OR 4 RECORDS.)

32. Did you catch these yourself or did someone else catch some of them?

All caught by fisherman . . 1 ⟶ (CODE Q. 33-34 AS "8" OR "88", GO TO Q. 35.)
Other contributors 2

33. Can you separate out your individual catch?

Yes . . 1 ⟶ (CODE Q. 34 AS "88", GO TO Q. 35.)
No . . 2

34. How many fishermen including yourself have their catch here? Please don't include anyone who did not catch anything. Only count those people who have their catch here.

35. UNAVAILABLE CATCH Did you land any fish that are not here for me to look at? IF YES, COMPLETE TYPE 2 RECORDS BY ASKING: What were they? What did you do with them? How many?

Thrown back alive . . . 1	Used for bait 4	Filleted and cleaned . 7
Thrown back dead . . . 2	Sold 5	Other (SPECIFY) 8
Given away 3	Not in vicinity of site 6	

36. AVAILABLE CATCH May I look at your fish? COMPLETE TYPE 3 RECORDS.

37. TYPE 4 RECORD. CATCH ON ANOTHER PERSON'S FORM. IF THE AVAILABLE CATCH FOR THIS FISHERMAN HAS BEEN RECORDED ON ANOTHER FISHERMAN'S FORM, COMPLETE THE TYPE 4 RECORDS ON THE BOTTOM OF PAGE 1 OF THE ANSWER SHEET. THE DATA IS FROM QUESTIONS 3 - 5 ON THE OTHER FISHERMAN'S FORM.

38. NUMBER OF TYPE 2 RECORDS: ENTER NUMBER OF LINES FILLED OUT FOR CATCH UNAVAILABLE FOR INSPECTION.

39. NUMBER OF TYPE 3 RECORDS: ENTER NUMBER OF LINES FILLED OUT FOR CATCH AVAILABLE FOR INSPECTION.

40. IS THERE A TYPE 4 RECORD? YES . . . 1 NO . . . 0

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GLOSSARY

- Area fished:
  - Ocean. For the purposes of the survey, ocean was divided into two categories: the ocean 3 miles or less from shore (Territorial Sea) except for Texas and the Gulf coast of Florida where it is 3 marine leagues, and the ocean more than 3 miles or 3 marine leagues from shore (Fishery Conservation Zone). Not included were sounds, inlets, rivers, bays, etc.
  - Inland. Other bodies of saltwater besides the ocean. Included were sounds, inlets, tidal portions of rivers, bays, estuaries, and other areas of salt or brackish water.

- Avidity:
  - The frequency of fishing activity, in number of days spent fishing.

- Catch:
  - Type A. Fish that were caught, landed whole, and available for identification by the interviewers. In addition, the fish were also weighed and measured.
  - Type B. Fish that were caught but not kept or were not available for identification.

    Type B1. Fish that were caught and filleted, released dead, given away, or disposed of in some other way.

    Type B2. Fish that were caught and released alive.
  - The total catch. The number of fish caught but not necessary brought ashore, may be obtained by summing catch Types A and B or A, B1, and B2.
  - The total number of fish removed from the fishery resource may be obtained by summing catch Types A and B1.

- Coastal counties:
  - All counties in the coastal States of the United States which were completely within 25 miles of the coastline and were included in the telephone/household surveys. This boundary was extended to 50 miles in subregions 6 and 7 from May through October. In addition, some counties on the Pacific coast inland of the 25 mile zone were included as they represented metropolitan areas that contained fisherman known to go saltwater sport fishing.

- Coastal resident:
  - A fisherman who lived in a coastal county included in the telephone/household survey.

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- Coastal State:
  - A State bordering on the Atlantic or Pacific Ocean, the Gulf of Mexico or the Caribbean Sea. State also includes a Territory or Commonwealth.

- Fishery Management Plan (FMP):
  - A plan developed by a Regional Fishery Management Council to manage a fishery resource pursuant to the Magnuson Fishery Conservation and Management Act of 1976.

- Fishing site:
  - Fishing site refers to the name and location of the place where fishermen were intercepted. Each intercept site was given a unique name and code number. The fishing site did not define the mode of fishing since fishermen may have used different modes at any one site.

- Fishing trip:
  - Fishing during part or all of one day in one mode. A fishermen who fished from both a pier and jetty on the same day made one fishing trip since the pier and jetty are both man-made structures. However, a fisherman who fished from a party boat in the morning and from a pier in the afternoon is counted as having made two fishing trips—a party boat trip and a man-made structure trip.

- Hours fished:
  - The amount of time a fisherman actively fished in a mode with his gear in the water. If a fisherman spent time fishing at other sites on the same day, that time was also included provided the fishing was done in the same mode. Not included was the travel time in a boat or travel time between sites.

- Household:
  - A household consisted of all persons who occupied a housing unit. The unit must have been intended for year-round use, and not be seasonal or migratory.

- Intercept survey or creel census:
  - Interviewing fishermen and examining their catch upon completion of their fishing trip, or under certain circumstances, while they were still fishing.

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- Length and weight of fish:

  - Length and weight measurements were obtained from a sample of fish brought ashore in whole form by intercepted fishermen. If more than 10 fish of the same species were brought ashore in whole form, 10 fish were randomly selected to be weighed and measured. If 10 or less fish of the same species were brought ashore in whole form, each fish was weighed and measured.

  - For fish with a forked tail, fork length was measured from the tip of the longest jaw or the snout, whichever was terminal with the mouth closed, to the center of the fork.

  - For fish with a non-forked tail, total length was measured from the tip of the longest jaw or the snout, whichever was terminal with the mouth closed, to the tip of the caudal lobe or fin.

  - Weight was measured to the nearest tenth of a kilogram (1 kilogram is approximately 2.2 pounds). Length was measured to the nearest millimeter (1 millimeter is approximately 0.039 inches).

- Marine recreational fishermen:

  - Those people who fished in marine waters primarily for recreational purposes. Their catch was primarily for home consumption, although occasionally a part or all of their catch may have been sold and entered commercial channels. Specifically for this survey, marine recreational fishermen were defined as follows: In the telephone/household survey, a fisherman was anyone who had been marine recreational fishing for finfish in the 12 months prior to telephone/household contact, and an eligible fisherman was anyone who had been marine recreational fishing in the 2 months prior to the telephone/household contact. In the intercept survey an eligible fisherman was anyone just completing a finfishing trip, or in certain cases, someone who was still fishing.

- Marine recreational fishing:

  - Fishing primarily with hook and line for pleasure, amusement, relaxation, or home consumption. If part or all of the catch was sold, the monetary returns constituted an insignificant port of the person's income.

- Mode of fishing:

  - The type of place or platform from which marine recreational fishing occurred. There are four modes:

    1. Man-made

       - pier, dock. A structure built over the water and supported by pillars.

       - jetty. A kind of wall, usually made of rocks, built out into the water or parallel to the shore to restrain currents or protect a harbor.

       - breakwater. An off-shore structure used to protect a harbor or beach from the force of waves.

       - breachway. A connecting channel.

       - bridge. A structure carrying a pathway or roadway over a body of water.

       - causeway. An elevated or raised way across wet ground or water.

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2. Beach or bank

   - beach. a level stretch of pebbles or sand beside a body of water, often washed by high water.

   - bank. A stretch of rishing land at the edge of a body of water not washed by high water, which could be rocks or an overhanging cliff.

3. Party or charter boat

   - party boat. A boat on which fishing space and privileges are provided for a fee. The vessel is operated by a licensed captain and crew. In some parts of the country party boats are also called head boats or open boats.

   - charter boats. A boat operating under charter for a price, time, etc. It is operated by a licensed captain and crew and the participants are part of a pre-formed group of fishermen. Thus, charters are usually closed parties, as opposed to the open status of party boats.

     NOTE: Both party and charter boats may make all-day or half-day trips.

4. Private or rental boat

   - private boat. A boat belonging to an individual.

   - rental boat. A boat that is rented. No crew is provided; the boat is operated by the renter.

- Non-coastal resident:

  - A fisherman who lived in a coastal State in a county which was not included in the telephone/household survey.

- Out-of-State resident:

  - A fisherman who lived in a State other than the coastal State in which he fished. An out-of-State resident may have lived in a county of a coastal State included in the telephone/household survey and was defined as a coastal out-of State resident; or may have resided in a county in a coastal State not included in the telephone/household survey or in a non-coastal State, and was defined as an out-of State non-coastal resident.

- State fished in:

  - (State of intercept) The State in which the fishing or intercept site was located. For boat fishing, it was the State in which the fishing effort and catch occurred.

- State of residence:

  - The State in which the fisherman lived and maintained his permanent residence.

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- U.S. Fishery Conservation Zone (FCZ):
  - The MFCMA defines this zone as contiguous to the Territoral Sea of all the United States and its possessions and extending seaward 200 nautical miles measured from the baseline from which the Territorial Sea is measured.
- U.S. Territorial Sea:
  - A zone extending 3 nautical miles from shore for all States except Texas and the Gulf coast of Florida where the seaward boundary is 3 marine leagues (approximately 10 statute miles).
- Wave:
  - A wave was a 2 month interval.

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